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THE

RAPID HEART: A CLINICAL STUDY.

By ARTHUR E. SANSOM, M.D., F.R.C.P.,
PHYSICIAN TO THE LONDON HOSPITAL.

MR. PRESIDENT AND GENTLEMEN,—When contemplating the question of what should be the subject of the address which, by your favour, I am chosen to deliver this evening, I was guided by the desire to find one concerning which I had some personal experience, one that should possess the greatest interest for the greatest number, and one the consideration of which should be of some practical usefulness. We are apt, I am aware, to set up, each one for himself, a standard both for the interesting and the practical; but I think I am right in the belief that there are very few members of our profession, whatever their line of practice, who have not been occasionally perplexed concerning cases manifesting disturbances of the normal action of the heart. Such perplexities have probably occurred in regard to diagnosis, prognosis, and treatment. There have been difficulties in determining whether the perturbations witnessed were due to, or were the disposing causes of, organic heart disease. There have been dangers of over-estimating and of unduly depreciating the signs of disturbance; so in the one case the anxieties of the patients and their friends may have been rendered needlessly acute, and in the other a delusive optimism may have been rudely checked by the fatal logic of events. And certainly, with reference to questions of the therapeutics of such disorders, it cannot be said that science is yet satisfied. If such thoughts have not occurred to many of my brethren, certainly all these phases of doubt and difficulty have been passed through by myself. It seemed to me, therefore, that it would be worth while to ask you to consider with me this evening some forms of disturbance of the action of the heart. I do not pretend that I shall be able to do much to solve the perplexities that I have assumed to exist, but I know by former experience that, even though no discussion immediately follows this address, my views will be tested in many mental crucibles, and that I shall learn more than I can teach.

Now to define the limits of my subject. I shall treat only of that form of disturbance in which the heart's action is morbidly accelerated. It was my first intention to include some forms of irregularity of the rhythm of the heart, and it will be necessary to mention some instances of these, because the conditions of irregularity and morbid rapidity sometimes overlap. I found, however, that the time at my disposal could only suffice for a brief review of the cases in which abnormal acceleration of the heart was the chief feature. I do not propose to consider any cases in which valvular or other organic heart disease was found to precede the signs of morbid acceleration, although I am well aware that the symptom is sometimes an important and dangerous complication of such organic disease, and in itself demands careful study. Nor do I mean to treat of any cases in which the condition of rapidity was in association with states of disease accepted by general experience as disposing causes of such acceleration. Such conditions, therefore, as fever, the direct influence of certain germs of disease, pronounced anæmia, hæmorrhage, and the operation of certain poisons, are excluded. So also are conditions of peripheral irritation, as the presence of undigested food in the alimentary tract and the sometimes pronounced effects of intestinal worms. Furthermore, I exclude cases in which the acceleration is solely paroxysmal. So I do not deal with all those interesting cases which have been described as instances of "paroxysmal hurry of the heart," though some of these, as I shall presently show, will be legitimately grouped with my own. Lastly, I exclude cases of palpitation when such symptom occurs in the case of a heart manifesting, at the times when such palpitation is absent, a normal rate of action.

Palpitation is defined in Quain's Dictionary as "abnormal movement of the heart, whereby the force of the systolic contractions is increased to such a degree as to give rise to a sensation of discomfort or distress on the part of the patient." This definition I entirely accept. In the cases which I shall ask you to consider there is of necessity no sense of distress or discomfort on the part of the patients when the heart is beating at a rate far above the normal, but these may be, and often are, the subjects of palpitation with its painful concomitants. I take, therefore, only those cases in which there is good reason to believe that the rate of the heart's cycles is unduly quickened for considerable, and in some instances for very protracted, periods. The cardiac action is, as it were, set for an abnormally rapid rate. For brevity, I have denoted these as cases of "rapid heart." It is obvious that we have to think of a disturbance which has been termed "functional." I share with our excellent librarian, Dr. Allchin, his objection to this term, and adopt his reasoning.[1] You will no doubt remember that a German professor long ago defined Amaurosis as a disease in which the patient saw nothing, nor yet the physician. Perhaps I may be permitted to paraphrase in some sort this definition, and say that a functional disorder of the chief organ of the circulation is a disturbance which involves the heart of the patient and the mind of the doctor. The vision of the ophthalmic surgeon has been, in the case of amaurosis, greatly aided by instruments for precise observation. The disturbed mind of the physician can only be calmed by the appreciation of truth, and this through the enlightenment which comes from the convergence of many facts. I shall here attempt no peering into the mysteries of intimate pathology, nor invoke the use of the imagination, however scientific. I mean to group certain clinical observations, to formulate perhaps certain penultimate propositions, and ask you to take therefrom your own inferences.

It is first necessary to pass in brief review the facts in relation to the form of heart acceleration that we are about to consider which have been already established by observers. We should at the threshold agree upon a rate of the heart cycles, which in the adult we may fairly take for the limits of health. We may consider the average rate of the cardiac cycles in the healthy male as 72, and in the healthy female as 80 per minute in the recumbent posture in each case. In the erect position these rates may be raised to 80 and 90 respectively. Seeing that very slight causes may tend to some acceleration, it can scarcely be affirmed that a heart-rate of 90 in the adult is of necessity abnormal. We may, however, I think, justly consider that a rate of cardiac pulsations observed under varying conditions to be over 90 errs on the morbid side, and requires some explanation of its morbid frequency.

We have considered the influence of *sex;* that of *age* must be duly weighed. According to the observations of Drs. Keating and Edwards of Philadelphia,[2] the mean pulse rate of the healthy infant until the close of the twelfth month varies between 112 and 130 per minute. During sleep this rate is usually reduced about 14 beats per minute. These observations presuppose the infant to be in a state of quietude. During active muscular movement or mental excitement the mean rate is increased to 150 to 163 per minute. The child of six years has an average pulse rate of 100, which at the age of thirteen has become reduced to 88, approximating, therefore, to the rate observed in the adult. The cardiac pulsations of the child are readily excited to a high degree of frequency by causes both intrinsic and extrinsic. Rapid action may occur from such causes of peripheral irritation as worms (oxyurides or ascarides), as well as from the multifarious conditions of indigestion, accompanied by pain. Sudden terror may induce violently perturbed and rapid action of the heart of the child. According to some observers, myself included, such terror may be the initiating cause of chorea, a disease in which the cardiac pulsations, sometimes irregular, are generally morbidly over-rapid, though such rapidity is not extreme. Dr. Bristowe has narrated a case in which paroxysms of extreme rapidity of the heart were probably initiated in a boy of eight from physical overstrain in a paper chase. This ultimately be-

[1] Functional Disease, by Dr. Allchin, Westminster Hosp. Rep., vol. ii.
[2] Clinical Studies of the Pulse in Childhood. Archives of Pediatrics, December, 1888.

came a case of protracted "rapid heart," and ended in sudden death at the age of nineteen. In boys, especially those nearing puberty, there is considerable evidence to show that masturbation may not only provoke paroxysms of palpitation, but may lead to conditions of irritable heart resembling those in the adult, which we shall now discuss. The classes of cases in which in adult life a long-persistent abnormal rapidity of the heart's action has been observed are for the most part the following:—

1. *Graves' disease (exophthalmic goitre).*—I cannot help expressing the regret that we must for the present use these terms to denote the affection. The first title suggests a controversy with our continental brethren, who employ the term "Basedow's disease" as its designation; and perhaps the complex title "Parry-Graves-Basedow-Stokes' disease" would be more just. As for the second designation, apart from the peculiar functioning of the adjective, it completely ignores the most important sign and symptom. I do not expect many to acquiesce, but I suggest the term "cardio-vaso-motor disease" for the present as a designation *faute de mieux*. In this affection the rate of cardiac pulsations may be normal with paroxysmal increases, or the morbidly rapid action may be persistent. In the words of Dr. Gowers, "the increased rate of action is sometimes trifling, and the pulse does not exceed 90–100 per minute. More often the rate is higher, 120 or 140 even when tranquil, sometimes 150 or 160, and under excitement it may rise to 180 or 200."[3] This acceleration of the heart's action is often the first sign, and it may be for long periods the only manifest sign, of the affection. This point was first noted by Graves.[4] Dr. Begbie said: "The cardiac and general vascular disturbances precede the thyroid and ophthalmic symptoms. ..... The palpitation of the heart is, for the most part, the symptom which chiefly attracts the attention of the patient, and leads her to seek professional advice."[5] Trousseau recognised as a *forme fruste* of the disease one in which violent palpitations constituted the chief sign, the thyroid enlargement and the exophthalmos being completely wanting. There can be no doubt that the disease is serious and often fatal, and that the chief cause of danger is in the cardiac involvement. Taking the figures of Charcot, Bellingham, Jaccoud, Hammond, and Hale White, I find eighty-nine cases, with a mortality of 23·25 7 per cent. Gowers says: "In most fatal cases death seems to be the result of the cardiac affection or of increasing general weakness." There may be the ordinary signs of cardiac failure, as in organic disease of the heart; or sudden death, with signs of syncope; or pulmonary or cerebral complications may supervene; or dyspepsia, with gradual asthenia; or, exceptionally, gangrene of the limbs from peripheral thromboses. In fatal cases the heart is commonly found dilated and hypertrophied, but in no considerable degree. The myocardium has been found in strictly normal condition. The one observation by Hale White, where there were hæmorrhages in the brain under the floor of the fourth ventricle, is very important and suggestive.[6]

2. *The irritable heart of soldiers.*—The term "irritable heart" was applied by Dr. J. M. Da Costa of Philadelphia to designate an affection which he had observed amongst the men engaged in the great American civil war. He found from observation of more than 300 cases, that though these might manifest no obvious departure from health, a persistently quick action of the heart was observable, and the affection was chronic. He noticed that the respiration rate was not quickened *pari passu* with the pulse; though the cardiac pulsations might be very frequent, the breathing might be normal. Dyspnœa with dyspepsia and præcordial pain might be, however, concurring signs, and the affection might result in cardiac hypertrophy.[7] It is shown with great probability that not only changes in the myocardium—hypertrophy or dilatation, or both combined,—but also valvular imperfections, can result from the condition of irritable heart. As Hirsch has recorded, there has been a notable increase in the proportion of cases of heart disease in a community at times of great political and social excitement. This was noticed in France during the Great Revolution and after the political agitation of 1830, in Rome after 1848, in Sicily in 1860, and in the Argentine States as a result of the political confusion and civil war.[8]

3. *Rapid heart in osteo-arthritis.*—Such association has been especially noticed by Dr. J. Kent Spender of Bath, in a communication to this Society. Dr. Spender says: "The pulse quickens with the earliest objective signs of osteo-arthritis; there is a gradual rise until the numerical frequency of 110, 115, or 120 is reached, and there is scarcely any physiological variation during day or night. And the cardiac tumult does not always subside even when the osteo-arthritic phenomena tame down; a quickness and an irritability continue which no medicine effectively controls."[9] It will be seen that my own observations tend to confirm these views. Dr. Spender has done important service in contributing to the elucidation of the etiology and clinical history of a disease concerning which much has yet to be learnt.

4. *Rapid heart without notable morbid association.*—Cases of extreme rapidity of the heart, attended with little or no subjective sign of distress, have been recorded by Bristowe, Broadbent, Samuel West, and others. In such an extraordinary acceleration of the heart's action has been described as lasting for days, or weeks, or months. Premising that my criticism is of nomenclature only, I must lodge an objection to the title of the valuable paper in which Dr. Bristowe brought such cases before the notice of the profession in *Brain* of 1888.[10] The communication was entitled "On Recurrent Palpitation of Extreme Rapidity in Persons otherwise apparently Healthy." It is true that attacks of palpitation occurred in many of the cases, but the, to my mind, most important feature was that frequently the condition of undue rapidity persisted for long periods without palpitation (as we have just now defined it) being manifested at all. I must urge a like objection to the term "paroxysmal hurry," which was applied to these cases. The word *paroxysmal* seems to imply acute exacerbations; but these may or may not occur. Whatever objections there may be to the terms, there can be none to the value of the observations. In a married woman aged thirty, the signs occurred suddenly and left after a week; the pulse rate observed was 180 to 192; on recurrence it attained 246. Dr. Bristowe says: "What seemed to me at the time the most remarkable feature of her case was the apparent absence of distress. Had I not known that the patient's heart was beating with extraordinary rapidity, it would never have struck me from watching her and conversing with her that there was anything the matter with her."[11] In another case, that of a female aged forty-nine, the pulse-rate was counted on many occasions, and found to vary in rate between 180 and 240 per minute. Yet it is said that there had never been, so far as was known, attacks of palpitation. The condition lasted about three weeks, and ended in albuminuria and death. In a third case, a lady of forty, rapidity of heart continued probably night and day for six weeks, the rate observed being 200 to 260; yet the patient suffered little in spite of such extraordinary cardiac acceleration, and was able to take long walks and perform systematic and laborious mental and bodily work. Agonising pain at the præcordium, however, supervened, and the patient died with symptoms of pulmonary obstruction and failing heart. Again, in a man aged sixty-five, Dr. Bristowe found the pulse to be not only rapid (144 and 148), but irregular, yet the patient was unconscious that there was anything unusual about his heart. He experienced no uneasy sensation about the præcordium, and manifested no shortness of breath. In a case recorded by Dr. Broadbent, which was observed for three weeks, the pulse was never under 200, and was usually 240; there was every reason to believe that the heart was beating at the same rate during the whole of the time.[12] It is obvious, therefore, that extreme rapidity of the heart's action, tachycardia, can be manifested for protracted periods without the usual symptoms of palpitation. In most of the cases recorded no definite cause for the commencement of the affection could be assigned, but in some over-exertion, in others mental overstrain, were very probably in causal

[3] Manual of Diseases of the Nervous System, vol. ii., p. 808. London, J. & A. Churchill, 1888.
[4] Clinical Medicine, vol. ii., pp. 220 et seq. New Sydenham Society, 1885.
[5] Selection from the works of Dr. Warburton Begbie. Edited by Sir D. Duckworth for the New Sydenham Society, p. 181.
[6] Brit. Med. Jour., March 30th, 1889, p. 699.
[7] Amer. Journ. of Med. Sciences, Jan., 1871.
[8] Cf. Hirsch, Handbook of Geographical and Historical Pathology, vol. iii., p. 441. New Sydenham Society, 1886.
[9] The Early Symptoms and the Early Treatment of Osteo-arthritis (commonly called Rheumatoid Arthritis), by John Kent Spender, M.D.Lond. H. K. Lewis, 1889.
[10] Vol. x., p. 164.
[11] Loc. cit., p. 165.
[12] The Pulse, by W. H. Broadbent, M.D. (Cassell & Co., 1890), p. 101.

relation. An attack which was supposed to be a sunstroke ushered in one of Dr. Bristowe's cases. There was a definite history of syphilis in a case recorded by Dr. Bristowe, and in another by Drs. Dreschfeld and Maguire.[13] Although in many cases manifesting very few signs of suffering or distress, the condition of protractedly rapid heart is no doubt serious and dangerous. Excluding two cases of Dr. Bristowe's series, one on account of the coexistence of organic (valvular) heart disease, and another because the symptoms were more strictly paroxysmal, there remain seven cases, and of these five died with signs which seem to show that the affection was in causal relation with the deaths. Of the six cases mentioned by Dr. Broadbent, one became hemiplegic and another died in convulsions. In one fatal case recorded by Dr. Bristowe the post-mortem examination showed the heart to be somewhat dilated and hypertrophied, but the valves were absolutely healthy, and so was the muscular tissue. In the case noted by Drs. Dreschfeld and Maguire, in which there was a history both of syphilis and alcoholic excess, the heart was large, and its structure presented degenerative changes. It is clearly proved that the condition of "rapid heart" may be manifested in the subjects of organic cardiac disease, but that it may also arise and progress, or continue for considerable periods, in those in whom no form of organic cardiac disease is known to exist. The question occurs, Is the affection one of the myocardium or of some portion or portions of the nervous system? Dr. Bristowe is of opinion that it has no special connexion with cardiac disease, and that dilatation and hypertrophy of the heart, when occurring independently of valvular mischief, are the slowly developed consequences, and not the causes, of the disturbance. Dr. Samuel West, on the other hand, thinks that cases of (paroxysmal) hurry of the heart are due to an organic lesion of the muscular substance, which may be, in some cases, a form of chronic interstitial myocarditis consequent, perhaps, on rheumatic pericarditis or on syphilis, and thus related to fibroid disease of the myocardium.[14]

I now proceed to a review of the cases of rapid heart which have been under my own immediate observation. I have taken from my note-books seventy-five cases. You will understand that I do not include in this series any in which, anteriorly to the signs observed, there was evidence of organic disease of the heart, or any with which other structural disease was cognately in association, or any manifesting a palpitation which was only paroxysmal, the heart's action subsiding to a normal frequency with the disappearance of the symptoms of distress. I include only those cases in which there was observed an abnormally rapid action of the heart for comparatively protracted periods. These may be conveniently divided into two categories. First, those in which there was no association whatever with the recognised cardinal signs of the affection I have termed "cardio-vaso-motor disease" (Graves' disease, Basedow's disease, exophthalmic goitre). In this division are 46 cases—30 females and 16 males. Second, those in which there was an association, more or less marked, with the affection mentioned. This division included 29 cases—24 females and 5 males.

CASE 1.—Perhaps the most interesting case which I have observed in the first category was that of a lady aged fifty-two, whom I saw in consultation with Dr. Baines. At the time of our interview a complete examination was rendered impossible by the emotional and mental perturbation of the patient. The lady, lying in bed, manifested little or no dyspnœa; there was pallor, but no cyanosis; no objective signs of cardiac or respiratory trouble. The pulse was uncountable, but by auscultation I found the heart beats to be 260 per minute. There were no murmurs nor any signs of abnormality in the size and position of the heart. The condition of "rapid heart" had continued probably for six weeks, and it was considered that the rate of action varied only within slight limits. In early life there had been attacks of "paroxysmal hurry of the heart," which had begun and ended suddenly. There had also been attacks, observed by Dr. Baines, of paroxysmal pain referred to the epigastrium, sudden in onset and abrupt in departure; these were unattended by any quickening of the heart-rate. This pain was only relieved by hypodermic injections of morphia in rather large doses. The lady was of considerable intellectual attainments, not hysteric in the ordinary sense. There was not the slightest evidence of organic heart disease. About three months previously to our visit a condition similar to that at the present had been manifested, and had lasted four weeks, ceasing suddenly. The imminent danger of the condition was apparent. By the advice of a mutual friend massage was attempted, in the course of which a floating kidney on the right side was detected. In the faint hope that this might be a reflex cause of the cardiac irritability it was attempted to fix the kidney by a bandage; but this measure had no favourable influence upon the condition. I may parenthetically observe that though I have seen several cases of movable kidney, I have never known one in which there has been any obvious disturbance of the heart's action, nor have I found such recorded by Landau or other observers. Furthermore, I have never been able to trace cases of protracted acceleration of the heart to any form of peripheral irritation. The day after my visit the patient fell into a state of trance, lasting half an hour; during this stage the pulse was quite imperceptible, and there was no apparent breathing. Consciousness, however, returned, but there was evident mental perturbation. Death occurred two days subsequently, the rapid action of the heart continuing till the end.

CASE 2.—The next case which I shall quote is interesting, as affording a history of probable origin from physical effort. A clergyman, aged sixty-one, was brought to me in 1884 by Dr. Dugald Stark, now of Oxford. He complained of shortness of breath on exertion, and occasional pain referred to the knees. There had been no antecedent rheumatism. He attributed the onset to overstrain from running two years previously; at this time there was some hæmoptysis. There were no physical signs of cardiac disease; the respiration during rest was normal; the pulse rate was observed to be 192. (Fig. 1.) I have no precise data as to the length of time

FIG. 1.

Radial pulse tracing. Male, aged sixty-one. Pulse 192. Origin ascribed to "overstrain from running" two years previously.

during which this rapidity persisted, but Dr. Stark generally observed the heart rate to be very rapid, and the pulse sometimes irregular. He thinks that the condition of rapidity continued the whole time that the patient was under observation. The outline of the heart appeared to be normal, the apex being just within a vertical line from the nipple, and five centimetres below. The absolute width of the heart dulness at the fourth interspace was ten centimetres. The patient took no sort of care of himself; he went for hours without food, was at everybody's beck and call, and allowed himself no cessation of work from week to week. I saw him again about four months after his first visit, when the signs were much as before. He again came to me after another interval of three months. Then the breadth of the heart-dulness had increased to eleven centimetres, and the apex was seven centimetres below the nipple; the heart had obviously dilated. I learned from Dr. Stark that one year and seven months after I first saw him the patient came to London for four days, and then returned to his home. Thirteen days afterwards, as he was hastening to catch an early train, he fell dead in the road about two hundred yards from his house.

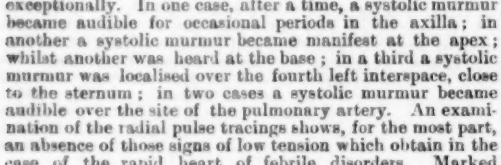
CASE 3.—My third case appears to indicate nervous shock as a disposing cause, though there was a predisposing cause in osteo-arthritis. A lady aged sixty-five consulted me in April, 1888, for fearful, agonising pain referred to the sternal region with radiations to the throat and tongue, and sometimes to the axillæ, the shoulders, and the arms. This pain occurred every day, its maximum duration being an hour and a half, and its minimum five to ten minutes. The outline and the sounds of the heart were normal. The pulse was 136. The patient complained of a feeling of intense weakness with tremors. These were mostly general, but sometimes local on the right arm; they were felt as a fine and rapid vibration. Breathing was slightly quickened, and there was marked dyspnœa on very slight exertion. There was no history of rheumatism. Sixteen years previously there had been a slight attack of right hemiplegia with aphasia, which had resulted in recovery of all movement. All the existing series of symptoms dated from the Riviera earthquake, the patient being in the midst of the terrors. The pain was much reduced after a course of

[13] Broadbent. The Pulse, loc. cit., p. 103.
[14] THE LANCET, March 29th, 1890, p. 696.

digitalis and iron, but the rapidity of heart continued, and in May I advised a course of weak galvanic currents from the cervical spine to the region of the great nerves of the neck. Ten days afterwards there had been no attack of pain, and the pulse rate was reduced to 96. Variations were observed between this rate and 116, but the recovery was progressive and exceedingly satisfactory. There was no return of pain during the treatment. I propose to present the chief points in relation to this section of my cases in a summary.

1. *Circulatory phenomena.* — The maximum pulse-rate observed was from 90 to 110 in seven cases, 110–130 in twelve cases, 130–160 in thirteen cases, 160–260 in six cases. In the great majority the outline of the heart was normal; in some it seemed to be even smaller than the normal. In three cases only were there signs of dilatation, and the probabilities seemed strong that such dilatation was the consequence of the perturbation, and due to no other causes. Usually the heart sounds were quite normal in pronunciation, though often the sounds and pauses seemed to be of equal duration, so there was a close resemblance to the rhythm of the fœtal heart. Murmurs were heard only exceptionally. In one case, after a time, a systolic murmur became audible for occasional periods in the axilla; in another a systolic murmur became manifest at the apex; whilst another was heard at the base; in a third a systolic murmur was localised over the fourth left interspace, close to the sternum; in two cases a systolic murmur became audible over the site of the pulmonary artery. An examination of the radial pulse tracings shows, for the most part, an absence of those signs of low tension which obtain in the case of the rapid heart of febrile disorders. Marked dicrotism is quite exceptional. In the very rapid pulses the line of ascent is short, and not vertical, but sloping. (Fig. 2.) The fall is not sudden, and there are generally

FIG. 2.



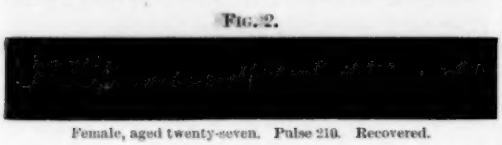
Female, aged twenty-seven. Pulse 210. Recovered.

some indications of the tidal or predicrotic wave; in many instances the summit is formed by a broad plateau. (Figs. 3 and 4.) The dicrotic wave is in some cases scarcely

FIG. 3.

Female, aged 54. Pulse 161. Severe hysteria, epistaxis, headache, insomnia. Died.

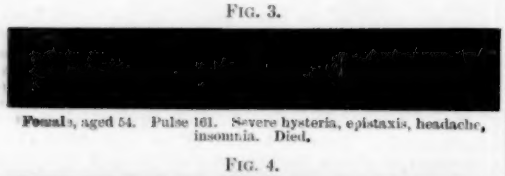
FIG. 4.



Female, aged fifty-six. Pulse 150. Origin ascribed to grief at death of husband and protracted nursing.

marked at all; in others it comes as a rounded bulging from about the level of the middle of the upstroke. In some of the cases in which there is less extreme rapidity the elevation may be considerable and the dicrotic wave more pronounced. (Fig. 5.) Even in these, however, I

FIG. 5.



Female, aged forty-four. Variable dyspnœa and diaphoresis; flatulence; habitual rapidity with paroxysmal increase. Pulse 144.

have found that such evidences of low tension may be only occasional, and may be succeeded by a period in which tension is comparatively high. It would seem to me, therefore, that the systoles of the left ventricle are generally not so sudden as they seem; that they are complete and, as it were, normal, but the heart is set to an unusual rate of cyclical activity; that the arteries tend to be somewhat contracted, and the arterio-capillary resistance, if differing at all from the normal, somewhat increased.

2. *Sensory phenomena.*—Pain about the heart was complained of in fifteen cases; it was localised over the sternum in two cases; it was very severe, having the characters of angina pectoris, in three cases. Difficulties of respiration were noted in six cases. Palpitation in varying degrees of severity was noted in seventeen cases, in some very intense, jarring the patients when recumbent, and preventing sleep. On the other hand, there were no subjective troubles referred to circulation or respiration in fourteen cases (about one-third of the whole number), including some in which the rapidity of heart was most extreme. These, therefore, afford confirmation of Dr. Bristowe's previous observations.

3. *Probable disposing causes.*—In many cases the patients ascribed the onset of their symptoms to a mental or physical overstrain. Among such causes operating on the nervous system were: railway accident, shock from death of a child, shock from death of a relative, mental overstrain (unexplained), operation for strangulated hernia, worry associated with piles and fistulæ, bad confinement, general nervous breakdown, over-nursing, hardship and anxiety. Among physical causes assigned were: athletic excess (two cases), muscular overstrain, long walk, tricycle racing, overstrain from running, over-exertion and late hours. In one case self-abuse was acknowledged as a cause, and it seems probable that sexual excesses are understated as factors. In other cases the oncome of symptoms was gradual and associated only with vague dyspepsia.

4. *Associated symptoms.*—Very generally there was a restlessness difficult to define, and insomnia was manifested in a large majority. Muscular tremors were very marked in eight cases; numbness was noted in one case in variable situations, in another in the left arm, in a third in the right arm; severe perspiration occurred in two cases—in one it was said to be "fearful"; mental troubles and aberrations were distinct in five cases—in one there was a history of hystero-epilepsy, in another of the alcohol or morphia habit (or both); vertigo and tinnitus aurium occurred in five cases, neuralgia and headaches in very many; osteo-arthritis was found in six patients, thus confirming Dr. J. K. Spender's observations; spasmodic asthma occurred in two cases; in one case there seemed a probable association with syphilis.

I turn now to the second division of my cases of rapid heart—those in which there was an association with some of the phenomena of Graves' or cardio-vaso-motor disease. Of these (twenty-nine in number) the three cardinal signs of the affection—exophthalmos, thyroid enlargement, and rapid heart—were manifested in twelve cases; in nine the cardiac rapidity coexisted with thyroid enlargement only, and in six with exophthalmos only. In two cases the only vaso-motor disturbance associated with the rapid heart was a throbbing on the great arteries of the neck. I thought I might be justified in regarding these as intermediate cases—on the borderland of the more developed disorder.

I will first take two cases which I consider particularly interesting as types.

CASE I.—The first seems specially instructive, as showing an acute determining cause of the grave symptoms in a shock to the nervous system, as indicating that such may lead up to organic disease of the heart with its commonly associated symptoms, and as pointing to the conclusion that protracted treatment may result in very satisfactory, if not complete, recovery. In September, 1882, I saw in consultation with Mr. Blackstone of Regent's-park a lady, aged forty-four, the subject of rapid heart. A week previously she had been in the country with her husband, and walked with him to the railway station to take the train for their return to London. Just before reaching the station they observed that the train was already waiting at the platform; they hurried on, and the husband entered a carriage intending to assist his wife to step in. Unfortunately the train started, leaving the lady on the platform. She immediately experienced a violent attack of palpitation of the heart, and was assisted to the waiting room. The husband returned by a subsequent down train, but found her too ill to undertake any journey. She remained a week in the country town where the shock occurred, and then came to London,

Mr. Blackstone and myself seeing her shortly after her return. Her pulse was about 160; there was little or no dyspnœa, but extreme feebleness. There was no exophthalmos, but distinct enlargement of the thyroid. It was probable that this existed in some degree previously, but increased after the attack. We kept the patient as quiet as possible, advised a course of digitalis in small doses, and the application of the continuous galvanic current to the situation of the great nerves of the neck and the præcordium twice a day. Three months afterwards general anasarca supervened, for which the usual remedies, with free puncturing the skin of the legs, were resorted to. A systolic murmur had become developed at the apex. The treatment by the continuous galvanic current was patiently persisted in for fifteen months. The signs of dropsy entirely passed away, the systolic murmur was no longer audible, and a very fair recovery ensued. The lady is now—nearly eight years after the onset—able to fulfil all ordinary social duties, though incapable of much exertion. The pulse is still rapid (100 to 125), and there have been occasional bronchial attacks, but no serious symptoms have been complained of.

CASE 2.—My second case in this category illustrates recovery from a condition of extreme danger. I was called in June, 1888, by Dr. Leeson of Twickenham, to see a lady, aged forty-nine, in consultation with him. The patient appeared to be *in extremis*. She was lying in bed, unconscious, manifesting short and shallow respirations. The pulse at the wrist was uncountable, but the heart beats by auscultation were estimated as 200 per minute. No murmurs were heard over the præcordium. Five years previously the patient had complained of shortness of breath on exertion as well as of general irritability. At this period she had some muscular tremor and occasionally dropped a tea-cup from her hand. Three years afterwards some prominence of the eyeballs was noticed, and feelings of discomfort were referred to the throat—probably both signs occurred *pari passu*. The condition of rapid heart developed gradually; palpitation was not noticed. Five months previously to my visit she had an attack characterised by acute pain, chiefly in the muscles of the back and the arms. This was thought to be acute rheumatism. The cardiac excitement was then so excessive that it was considered that an attack of pericarditis was imminent. At the same time very severe diarrhœa occurred. Following this were syncopal attacks, and then the grave condition which I witnessed, when all feared that death was imminent. I considered that the signs indicated a crisis of Graves' disease. We agreed to administer hypodermic injections of ether and several successive five-grain doses of musk. If the patient should rally from her state of imminent danger, we arranged that treatment by the weak continuous galvanic current to the eyelids, the thyroid swelling, and the heart region, should be begun on the day following and continued daily. Recovery did take place, and Dr. Leeson reported great improvement, eyes retreating, thyroid swelling diminishing. The patient came to my house ten months subsequently to the attack. She was then in very fair health, though evidencing some difficulty of breathing on undue exertion. She could walk about fairly well. The pulse was 100 both in the standing and in the sitting position; it was slightly irregular. Proptosis was not noticeable, and the thyroid swelling very slight. It was obvious that there had been a very satisfactory recovery.

I proceed now to a brief summary of the most important points in relation to my twenty-nine cases of rapid heart occurring with some manifestation of the phenomena of Graves' disease.

In regard to *circulatory phenomena* the maximum rate of pulse observed was 108–120 in twelve cases, 130–160 in nine cases, 180–200 in four cases. Murmurs, systolic in time, were heard over some portion of the præcordium in sixteen cases. The most common situation was over the pulmonary artery (eleven cases); the area of audibility also included the third left interspace near the sternum in four cases, and the fourth left interspace in two cases. In six cases a systolic murmur was heard at the apex; this was often variable, and in the cases that recovered passed entirely away. There can be little doubt that when it existed it indicated mitral regurgitation. In the case already cited dropsy and the pronounced signs of organic disease were manifested. In other cases œdema was noticed about the eyelids and the feet, and in one it was extensive in the legs and thighs.

An analysis of the pulse tracings shows that whilst in some cases the rapid pulse has the same characters as those described in the former section (Fig. 6), in others

FIG. 6.

Female, aged forty-one. Pulse 160 to 180. Graves' disease without exophthalmos. Treated by weak continuous galvanic currents for more than seven months. Then great improvement and heart-calm.

there is a very extreme irregularity—in some a veritable *folie du cœur*. The irregularity is in time and in volume; a fall may be succeeded by a diminutive systole; then two well-pronounced cycles may be manifested; then perhaps two diminutive ones; then an intermission. (Figs. 7 and 8.) In some cases in which this irregularity

FIG. 7.

Female, aged thirty-eight. Typical Graves' disease. Pulse varying from 108 to 144. Marked irregularity.

FIG. 8

Male, aged forty-one. Typical Graves' disease. Pulse 196. Extreme irregularity; sometimes hyperdicrotism.

exists, the individual tracings may present broad summits, and evidence a fairly high tension; in others there may be extremely low tension—hyperdicrotism. And yet the patients whose hearts present the signs of this extraordinary riot may come to us walking about as usual, and manifesting few, if any, signs of distress. I do not know that this extreme irregularity of the heart in some cases of Graves' disease has been sufficiently brought under notice. I have had under my care at the same time two sisters suffering from Graves' disease—the one presenting signs of rapidity only of the heart, whilst the other manifested extreme irregularity.

Palpitation was complained of by seventeen of the patients, probably it occurred in a larger proportion; but it is certain that in some it was never complained of as a symptom, though the rapidity of the heart's action was great. It is certain also that in some cases at the time of extreme rapidity and irregularity of action no distress at the heart was experienced.

With regard to *probable disposing causes*, the patients ascribed the commencement of their symptoms to the following:—A carriage accident, sudden mental depression, grief at loss of a son, trouble from death of a sister, extraction of a number of teeth, severe confinements (two cases), much worry, being overtaxed with nursing, hurry to catch a train (in addition to the case already quoted, in which a like cause was alleged). In eight cases the onset was gradual, and no disposing cause could be assigned. The heart signs were the first to be noticed in the majority of cases, but not in all. In two the eye symptoms began. In one the sequence was (1) eyelids swelling, (2) heart symptoms; thyroid was enlarged, but its enlargement had been unnoticed. In another there was first excessive nervousness, then palpitation, then thyroid signs, and, lastly, exophthalmos. In two the thyroid signs commenced.

The following were some of the *associations*; it is unnecessary to consider all, for many were such as are well known and amply described in extant works on Graves' disease. *Muscular tremors* were very marked in seven cases, present in many more; they were general in four, localised in the arms in one case, in the face in one, and in the eyelids in one.

This observation is not in accord with Charcot, who, following the observations of M. P. Marie, says that the fine tremor observed in Basedow's disease is general in all the great muscles of the trunk and limbs, but never in those of the head and extremities.[15] *Defects of hearing*, tinnitus, and vertigo were manifest in five cases; it will be remembered that this association was also marked in the former section of cases. *Glycosuria* was present in one case, the urine containing 2·83 per cent. of sugar; it is worthy of note that in two other cases the father died of diabetes. As in the former section, *severe perspirations* were suffered in three cases. Epistaxis, menorrhagia, headaches, faintings, discolourations of the skin, diarrhœa, and dyspepsia were noticed in both sections of the cases of rapid heart, and in both sections mental disorders have been evidenced.

As I said before, I do not intend, on this occasion, to enter upon the questions of the precise pathology and pathogenesis of the condition of rapid heart, yet I think the evidence adduced is sufficient to justify my placing before you certain propositions. In the first place, it appears to me in the highest degree probable that the conditions in the two sections of cases manifesting abnormal rapidity of the heart's action are closely allied. This seems to be indicated from the points of view of etiology, consequences, and associations. In both divisions there is strong evidence of the initiating influence of psychical or physical overstrain, or of these causes combined; whilst in both, also, the condition may develop without such initiating influence. In the one and in the other organic disease of the heart may be manifested, though exceptionally. There seems to be no good evidence to suggest the probability that such structural disease, whether inflammatory or degenerative, is protopathic, or even initiated at a comparatively early period of the malady. On the other hand, there is much to show that it is secondary to the nervous implication. It is clear that the impairment of the myocardium occasioning dilatation of the cavities may be temporary only in some cases. I do not think that we should look upon the cases of rapid heart as *formes frustes* of Graves' disease; rather cases of the latter may be regarded as *formes étendues* of the former. I should interpret the differences between one and the other as differences of extent as regards nervous implication rather than as differences of intensity. In certain cases where the heart rapidity is the only sign of circulatory disturbance the danger to life is extreme.

The signs of more extensive involvement of the nervous system are (*a*) in disturbance of the vaso-motor conditions of the great arteries of the neck, whereby these manifest obvious, and perhaps painful, throbbings; (*b*) in like disturbance in the thyroid arteries, which may present dilatations and bulgings; (*c*) in similar affection of the post-orbital arteries, with perhaps such alteration in nutrition as to lead to the accumulation of superabundance of fat. It is to be noted that in the first section, in which the cardio-motor conditions were disturbed without local vaso-motor involvements, murmurs heard over the great vessels emerging from the heart were proportionately far less frequent than in the second section. It seems probable that these murmurs indicated a disturbed correlation between the heart and the arteries. The condition of marked irregularity noticed in some of the cases seems to point to a further nerve involvement. I have evidence to show that an irregularity resembling that present in some cases of Graves' disease may occur without abnormal rapidity, and without any other signs of the cardio-vaso-motor affection. Concurrently with any of the signs mentioned, or with all, there may be an implication of the motor area leading to muscular tremors, and in some cases there may be an impairment of the powers of the mind.

It was my hope to have been able to devote some portion of this address to the subject of treatment. To consider this adequately would require far more time than is possible this evening, but I hope to have an opportunity in the future to offer some evidence on the subject. It must suffice now to say that though in the less severe cases medicinal treatment has proved of great value, it has seemed to me that in the more severe ones drugs have been almost useless; especially is this the case in regard to digitalis and heart tonics generally. As I have incidentally mentioned in describing some of the cases, the systematic employment of the continuous galvanic current in the region of the great nerves of the neck has appeared to me to be of value. I have to express my thanks to Mr. H. W. D. Cardew, who has not only undertaken the galvanic treatment of some of my cases, but has helped me in the endeavour to procure precise data as to the immediate effect of the current, applied as I have mentioned, upon the vaso-motor conditions. I believe that a *primâ-facie* case has been fully made out for such method of treatment of the cases of rapid heart, but many points in regard to it demand, and I think would repay, further investigation.

[15] Gazette des Hôpitaux, Jan. 31st, 1885, p. 98.

NOTES ON THE FUNCTIONS OF THE NERVOUS SYSTEM.

By W. R. GOWERS, M.D., F.R.S.,

CONSULTING PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL; PHYSICIAN TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

II.—THE DUAL ACTIVITY OF NERVE CELLS.

WE commonly speak and think of nerve cells as acting under stimulation and passing into a state of complete inactivity when the stimulation is at an end. But is there any evidence of complete inactivity of any nerve cells at any time? On the sensory side, so far as nerves of the muscles and skin are concerned, the passage of impulses along the fibres must be constant alike in the sleeping as in the waking states. When awake we can, by attention, become conscious of sensory impressions from any part at any time. The part on which the body rests must be the seat of considerable continuous stimulation of the nerve endings, and the movement of blood in the arteries must everywhere coöperate with pressure, as we occasionally feel that it does. The knowledge of posture is also unbroken. Moreover, the sensations we perceive are probably only a fraction of those impulses which pass up, and are not powerful enough to influence our consciousness. Hence all the cells that are interposed in the sensory path, and to which it leads, must be in a state of continuous activity.

On the motor side we have no similar evidence of continuous stimulation unless such stimulation is produced by the sensory cells acting on the motor cells at their own level. But we see evidence of the continuous activity of the motor cells in several facts. First, we have the constancy of muscular tone and adaptation of muscles to posture—that is, to the distance between their attachments, both of which are due to and indicate an active state of motor cells of the spinal cord. We have also evidence that this continuous activity is controlled by the higher structures of the motor system. This we may infer from the manner in which disease of the motor cells of the cortex is followed by an increased activity of lower cells, so that there is ultimately developed a state of tonic spasm and active shortening of certain muscles. This is very conspicuous in the legs in cases in which the leg centres in the cortex are compressed by hæmorrhage during birth. If the activity of the motor cells is immediately excited by the upward impressions from the muscles, there must be a tendency to spontaneous action in these motor nerve cells, because the impressions from the muscle nerves are the result of the activity of the cells, and that which is a result cannot alone induce excess in its cause.

We must pause for a moment to note that there is nothing difficult about the conception of a spontaneous evolution of nerve energy. Some nerve cells at any rate act continuously, therefore they must act during the process of nutrition; that is, the process of nutrition of the cell is compatible with functional activity. It is supposed that the nerve force is so prepared from chemical tension force as to be ready at any moment for instant release. Is it not much more easy to conceive that this process of preparation and storing is one also of production? Surely, to bring the latent chemical energy, which in the constitution of nerve tissue is probably held in more delicate equilibrium than in that of any other material substance,—

to bring it just up to, and not beyond the line of perfect preparation, is much less easy to conceive, for many reasons which will be obvious on consideration, than continuous passage of that line.

If, as we assume, these motor cells are controlled, the control involves the corresponding continuous activity of the cortical cells. So also does the presence, demonstrated in animals, of a controlling action in the optic lobes influencing the reflex action in the cord. Indeed, if the reasoning in the first paper is valid, there must be a continuous action of the cerebellar cells on the cortex of the cerebral hemisphere, and this itself must imply the continuous action of the cortical cells. I anticipate so far as to point out that the phenomena of catalepsy constitute very strong additional evidence in favour of the continuity of action and of control, and also of the spontaneous character of the motor activity.

Again, the phenomena of dreaming (which make it probable that the apparently dreamless sleep is only a matter of memory and the discontinuity of consciousness) show, certainly in some and probably in all, that the cells on which these mental processes depend do not pass into a state of inactivity in sleep any more than in the waking state. If some nerve cells are continuously in a state of slight activity, and we have no proof of the opposite condition anywhere, of perfect inactivity, we are not justified in assuming the possibility of this opposite condition. Inactivity means the increased action of controlling cells, and that only. The cells in which the nerves end that come from the organs of the special senses seem to be an exception to the rule. But it is probable that the exception is apparent, and that they do not differ from the rest. We can perceive impressions by attention when we think that there are none. The quickness with which we become accustomed to an odour seems more likely due to the fact that it ceases to be noticed than that it ceases to act on the fibres of the olfactory nerve. In a room that is absolutely dark the field of vision is covered with tiny luminous points in rapid motion.

There seem therefore to be two forms of action: that which is induced and excited by stimulation, and that which is continuous and is the subject of control.

It is interesting in connexion with the difference in the kind of action in the motor and sensory cells to note the difference in their size. Size involves increased capacity for the evolution of force in a given time, in all contrivances for evolving force. The difference may be, perhaps, associated with the fact that the sensory cells are exposed to continuous stimulation, and action above that which is *induced* is not apparently needed.

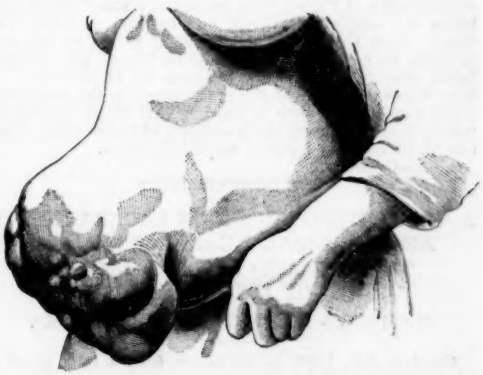
Surely many phenomena of disease compel the conception of continuous activity. The phenomena of central neuralgia show that the sensory cells can evolve nerve force without stimulation, because the pain may continue after the nerves are divided. But that kind of activity which exists in disease must exist in slight degree in health. As in sensory so in motor morbid action. The forms of spasm that do not cease during sleep also demonstrate the capacity for continuous activity. The control exerted through the structures through which the cells are excited to occasional activity, the consideration of the difference in the effect according to the degree of action of the higher structures and also the difference in the effects of stimuli according to the state of activity of nerve cells must be deferred to another paper.

MEDICO-PSYCHOLOGICAL EXAMINATION.—An examination for the certificate in Psychological Medicine, given by the Medico-Psychological Association, will be held in July. Candidates intending to present themselves for examination should apply for particulars and give fourteen days' notice in writing (unless unavoidably prevented) to either the General Secretary of the Association, Dr. Fletcher Beach, Darenth Asylum, Dartford; the Secretary for Scotland, Dr. Urquhart, Murray's Asylum, Perth; or the Secretary for Ireland, Dr. Conolly Norman, Richmond Asylum, Dublin,—according as they desire to be examined in London, Edinburgh, or Dublin. The exact date of the examination and further particulars will be advertised in THE LANCET. In the month of July an examination for the Gaskell Prize, open to all those who possess the certificate, will be held in London. Particulars can be obtained from the General Secretary.

ENORMOUS VENTRAL HERNIA.

BY JOHN H. MORGAN, F.R.C.S. ENG.

THE case of which the accompanying drawing gives a very adequate representation was one of ventral hernia occurring in a woman aged fifty-six, who was admitted into Charing-cross Hospital under my care on the evening of Jan. 1st. She had previously been attended by Dr. Duncan, who had found her suffering from all the symptoms of strangulation. Vomiting had been going on for four days almost continuously, during which time no motion had been passed. This had at first been



relieved by remedies, but had recurred, and for several hours before she was brought to the hospital the vomit had all the appearance and smell of fæcal character. The patient is a well-built unmarried woman, and the hernia first appeared fourteen years ago, when it was about the size of an egg. On two former occasions it has given rise to somewhat similar symptoms to those for which she was admitted, but it is only within the last few months that she has worn an abdominal belt. On inspection there was a large abdominal swelling due to a ventral hernia, which, owing to the extreme thinness of the superficial structures, exhibited the contour of several coils of intestine. The tumour was

throughout resonant on percussion, but by no manipulation could it be reduced, though there was no tenderness, and firm pressure could be borne. In parts an indistinct impulse could be felt, and gurgling heard, but round its margins the swelling was tense. There was no pain; the pulse 120; temperature 97°. The tongue was red and irritable. Vomiting was at first frequent, though not stercoraceous. An injection containing five minims of oil of ruta was given, and a succession of large heavy poultices applied to the abdomen. The vomiting continued during the night and the following day, but in the evening the bowels acted and the vomiting ceased. Since then she

has steadily improved, and is only waiting for a properly constructed belt to be applied before she leaves the hospital. It is difficult to give any idea of the size of this enormous protrusion, since it alters constantly with the condition of the intestines, the peristaltic movements of which can be perfectly studied owing to the extreme tennity and transparence of the skin, which seems in parts to be little thicker than paper. The following measurements were taken by Mr. Da Costa, the surgical registrar. The swelling measures longitudinally, the patient being on her back, in the middle line eleven inches; transversely, at a little above the umbilicus, fifteen inches and a half. Laterally, on the right side, the edge of the protrusion is only a finger's breadth from the anterior superior spine; on the left side the distance from the same point is a little more. The upper margin of the swelling commences about four inches below the ensiform cartilage, and extends to about two inches above the pubes, and above it leaves no interval between its edges and the costal cartilages, and extends below almost to Poupart's ligament on either side. A little below the centre of the protuberance is the umbilicus, which forms a very deep depression, with thick margins all round, thus negativing the possibility of the swelling being due to the ordinary forms of umbilical hernia.

Grosvenor-street, W.

A CASE OF SPONTANEOUS LACERATION OF AN UMBILICAL HERNIA, WITH PROTRUSION AND STRANGULATION OF INTESTINE.

BY HENRY PILKINGTON, M.R.C.S.E., &c.

ON Jan. 9th, 1890, on my return from a long round of country visits, I found a messenger requiring my immediate attendance on Mrs. E. P——, residing about three miles from my house. He could not tell me what her complaint was, and I went at once, taking with me a pocket dressing-case and a few drugs for ordinary emergencies. At 2 P.M. I saw Mrs. P——, a farmer's widow, aged seventy-three, mother of several grown-up children. She had always enjoyed good health, and her family was long lived. About 10 A.M. on the morning I was called she was so sick and ill that she had to leave her household duties and go to bed. Shortly afterwards, feeling her underclothing getting moist, she asked her servant to look what was the cause. On account of what she saw, the servant at once sent for one of the patient's sons from his work to get medical assistance. I found Mrs. P—— lying on her right side, in great pain, and she had just ceased vomiting. She appeared greatly collapsed; skin cold, face looking drawn and anxious; pain worst at epigastrium; tongue moist and slightly coated; pulse 126, thin, wiry, and regular. On examining the abdomen, I found an immense tumour, 2 ft. 2½ in. in circumference; an umbilical hernia, with irregular pouches in three places, each pouch as large as a hen's egg. The mass was resonant on percussion everywhere, and the skin over it very tense and extremely thin. At the umbilicus itself protruded, through a rent in the skin, a large knuckle of intestine (very distended) more than eight inches long on the convex border. The rent was so small that the bowel was quite strangulated, and presented a purple or almost black colour, consequent on its strangulation for about four hours. I found it impossible to return the bowel through the small rent, and, as the symptoms of collapse, &c., were so urgent and professional assistance could not be obtained for at least two hours, I determined to try to give relief as soon as possible. By enlarging the wound I succeeded in relieving the constriction and returning the bowel. The skin was so very thin that I dared not use the ordinary interrupted suture; so I applied the "quill" suture. Suitable quills not being procurable, I made supports for the sutures (silk) out of white pine wood, each piece four inches and a half in length, and as thick as an ordinary lead pencil. Having carefully adjusted the peritoneum, I inserted the stitches quite half an inch from the edges of the wound, and closed it by five sutures. Iodoform was sprinkled freely about the wound, and the large hernia supported on a pillow. A grain of opium was then given, and half a grain ordered every four hours. Milk diet only. After the return of the bowel the patient seemed greatly relieved. Pulse 120.—Same day, 8.30 P.M. The patient much relieved. No vomiting; pulse 110; stronger.—Jan. 10th, 11 A.M.: The patient slept well. No sickness. Pulse 96, regular, and full. Tongue moist, with slight white fur in centre. 9 P.M.: The patient was free from pain, and passed flatus per rectum.—11th, 11.30 A.M.: The patient was easy and perspiring freely. Pulse, 88, intermittent, and weaker. Wound dressed; healthy, but the strain on the sutures very evident.—12th, 11.30 A.M.: The patient slept well. Urine and flatus passed freely. Tongue dry, red at tip and edges, with brown fur in centre. Skin moist. Pulse 96, full, and regular.—13th, 11.30 A.M.: The patient did not sleep so well last night. Tongue moister, with only slight fur in middle. Skin moist and cool. Pulse 96, full and regular. Sutures removed as skin appeared irritated. Wound dusted with iodoform and covered with a strip of lint, supported with long strips of roborans plaster, two inches and a half in width. Half a grain of opium every six instead of every four hours.—14th, 12 P.M.: Patient improving and craving for solid diet. Passed a deal of flatus. Pulse 90, regular.—15th, 11.30 A.M.: Patient doing well. Pulse 72. Tongue moist, only slightly furred. Wound dressed as before; very slight discharge, and almost healed. Opium to be discontinued. Bowels not moved since 9th inst.—16th: Patient had one ounce of castor oil at 7 A.M. No motion, so same dose was repeated at 1 P.M. Bowels acted freely at 3.30 P.M. To have chicken broth, sago, or custard. From the last date, with the exception of some slight superficial sloughing of the skin around the rent, the patient progressed most favourably. At the present time of writing (Jan. 30th, 1890) there is only a small sore, which is healing rapidly.

A very strange circumstance is that Mrs. P—— had concealed from everybody, even her grown-up daughter, that she had a hernia of such immense dimensions, and which, she asserts, had existed for over seventeen years. She gives as the reason of her silence, "that it never gave her any pain." Unfortunately, Mrs. P—— can give no information as to the progress of the hernia's growth, and, indeed, cannot state the exact time when the skin broke and the prolapse of the bowel took place. She only went to bed when compelled by the vomiting and prostration caused by the strangulation of the bowel, even then not knowing what had happened. The bowel must have been exposed and strangulated for quite, if not more than, four hours, and, considering the cold morning and the friction caused by her clothing (Mrs. P—— was not undressed when I first saw her), it is remarkable no peritonitis ensued.

Ormskirk, Lancs.

CASE OF JACKSONIAN EPILEPSY, SUPPOSED TO BE SYPHILITIC, RELIEVED BY TREPHINING.

BY A. G. MILLER, F.R.C.S. EDIN.,
SURGEON TO THE ROYAL INFIRMARY, EDINBURGH.

THE following interesting case has been written out by my former house surgeon, Dr. Alex. Miles, from notes taken in Dr. Wyllie's ward, and also in my own ward by my house surgeons, Drs. Cowper, Hitchin, Stoddart, and Miles. The case was presumed to be one of syphilitic disease affecting the cortex of the brain primarily. My diagnosis of syphilis was founded on the following points:—The history of abortions, the occurrence of lumps on the frontal region, which disappeared under medicine (supposed to be iodide of potassium), the improvement of the patient under mercury and large doses of the iodide in my own hands, and the admission of syphilis by the husband. The operations were at first undertaken solely with the view of relieving tension. At the last operation pus was suspected, and was found deep in the brain substance, apparently close to the falx. The result of the operations was very satisfactory. Believing as I did that the affection was syphilitic, I had no hope of an ultimate cure, but I expected that the urgent symptoms would be relieved. My expectations were

more than realised, for my patient's life was saved on at least three occasions, and prolonged for two years. In February, 1888, the fits were so severe and constant that the patient could not have survived for more than a few days at the most. In September of the same year my patient was once more apparently saved from impending death. Again in June, 1889, she was evidently in a dying condition when placed on the table, and was immediately relieved by the evacuation of the abscess.

I have ventured to place this case before the profession not only because I believe it to be of great interest, but, still more, because it is most encouraging; for though the patient ultimately died, and probably of the same disease from which she was suffering when she came under my care in 1888, yet her life was prolonged for a period of about two years. I regret very much that a post-mortem examination was not permitted, but I did not know of the death till some weeks after it had occurred, the friends purposely keeping me in ignorance lest I should ask for an examination.

Summary of case of Jacksonian Epilepsy (probably Syphilitic), relieved by Trephining. Frequent reccurrence of Fits, always relieved by operation.

Dates.	Operations.	Remarks.
1886.		
Nov.	——	Attended review. Caught cold. Pains in head began.
Dec.	——	Two lumps appeared over right orbit.
1887.		
Sept.	——	Fell in street. Recurrence of pains. Unconsciousness, lasting 2½ days.
Nov. 26	——	Admitted to Ward 31. (Right Jacksonian epilepsy.)
Dec. 5	——	Had first epileptic fit.
1888.		
Jan. 10	——	Fits modified. Left side of mouth, arm, and hand affected.
,, 25	——	Double optic neuritis.
Feb. 14	——	Left arm and leg paralysed.
,, 15	——	Fits continuous all day. Admitted to Ward 17. (Right Jacksonian epilepsy.)
,, 16	1st operation	Trephined: one circle. Improvement.
,, 22	——	Fits returned.
,, 24	2nd operation	Trephined: two more circles. Slight improvement.
March 5	——	Put on morphia.
,, 7	——	No fits to-day. Morphia stopped.
,, 9	——	Took erysipelas. Still complete left hemiplegia.
,, 23	——	Could move toes.
,, 30	——	Could move leg.
April 9	——	Could use arm.
,, 24	——	Got up.
June 1	——	Went home.
Sept. 8	——	Came back for return of fits, and hemiplegia.
,, 11	3rd operation	Cicatrix opened up. Brain explored. Improved.
1889.		
Feb. 2	4th operation	Fits recurred. Brain explored.
March 5	5th operation	Trephined: one circle. Improved.
April 20	6th operation	Abscess under cicatrix evacuated. Relief.
May 16	——	Wound again healed.
,, 23	7th operation	Cicatrix again opened up for pain and tension.
June 20	8th operation	Compression symptoms. Coma. Stertor. Brain explored. Cerebral abscess evacuated. Immediate relief of symptoms.
July 4	9th operation	Slight compression symptoms. Exploratory puncture of brain. Relief.
Aug. 10	——	Got up. Could use legs.
,, 14	——	Went home.
1890.		
Jan. 10	——	Took influenza.
,, 17	——	Became semi-comatose.
Feb. 10	——	Died. No necropsy obtained.

Mrs. J. G——, aged fifty-four, employed as a cook and housekeeper, was admitted to Ward 31, Royal Infirmary, Edinburgh, on Nov. 26th, 1887, under Dr. Wyllie's care. On her admission she complained of a severe and almost constant pain in the right frontal region, especially severe in the right eye and also over the occiput. These pains she described as "stabbing," and they dated a year back. She ascribed their commencement to a cold she caught while attending a review. Some weeks after the pains began, two hard "bone-like" lumps appeared over the right orbit. These disappeared after being treated by hot fomentations and some medicine internally. Two months before admission she became ill in the street and fell down, injuring her head. Soon after the pains returned, as well as a swelling over the right frontal eminence. She became quite insensible, and remained so for two days and a night. As her pains were getting worse, she applied here for advice, and was admitted to Ward 31. She stated that her health had never been very good, and she had a distinctly rheumatic history. She had several abortions before her two surviving children were born.

Notes of her condition on admission.—Sensory functions: Complained of a feeling of general languor and weakness, with vertigo, and severe constant headache, which began in the right temple and darted upwards over the whole head. She had also great pain in the right eyeball, and her sight had recently become affected. She sometimes had pain in the fifth pair of nerves. All her pains were aggravated at night. Motor functions were all normal save for some rheumatic arthritis in several of her joints—e.g., fingers, knee, &c. Other systems were all fairly healthy.

Subsequent notes.—Dec. 5th, 1887: Patient had her first epileptiform fit to-day; she had no sensory aura. During the fit her pupils were dilated, conjunctivæ sensitive, and her respiration stertorous. Her arms were tonically contracted. She remained unconscious for ten minutes, and as the fit passed off it was followed by twitchings of all the fingers.—6th: Two similar fits to-day.—Jan. 10th, 1888: Since last note patient has daily had five or six minute seizures, which were always preceded by a "choky feeling in the throat," and accompanied by rapid trembling movements of the right hand. During her fits to-day there were twitchings of the left side of the mouth, with elevation of the angle, rapid movements of the eyelids, and trembling movements of the left hand and arm. The left leg was not affected.—25th: Fits continue at intervals. Patient has double optic neuritis.—Feb. 1st: Numerous slight fits since last note. Begin now by patient yawning, then angle of mouth drawn to left side. There is no loss of consciousness. Has been much benefited by a mixture containing bromide and iodide of potassium, the pain having now gone.—14th: Patient had a succession of seizures, with jerking of arms and legs. She complains of prickling sensations in her left arm and leg, which are almost completely paralysed. There is no anæsthesia.—15th: Patient goes from one fit into another, with only very short intervals. Fits begin by conjugate deflection of the eyes upwards and to the left, followed by drawing of the mouth to the same side. There is a tonic stage, lasting for a few seconds, and succeeded by a longer clonic stage. She is quite conscious all the time, and sometimes speaks even during the seizures. In one of her attacks the spasms spread to the right side. She complains greatly of the pains during the fits.—16th: The patient was removed to-day to Ward 17, under Mr. A. G. Miller's care. As she was passing from one fit into another without any interval, Mr. Miller decided to operate at once. The nature of the fits and the mode of their onset and course seemed to localise the causal lesion, if central, in the posterior portions of the superior and middle frontal (area 12 of Ferrier), and the middle of the ascending frontal convolutions (area 7 of Ferrier). He accordingly made an opening in the skull with a half-inch trephine about two inches above, and somewhat in front of, the external auditory meatus. No cerebral pulsation was noticeable on exposing the dura, which was then opened by a crucial incision. Nothing abnormal was found in the meninges, and the brain substance was thoroughly explored with a large bore hypodermic needle, but with negative results. The head was dressed and the patient put back to bed. During the rest of the day the fits continued, but were less frequent, occurring on an average only every twelve minutes.—20th: The patient has improved somewhat since the operation. The fits are less frequent, and not so severe.—22nd: Fits have begun again. They follow one another very rapidly, but are slightly modified, the mouth being first affected. 24th: The patient still getting worse. Mr. Miller operated again. He removed one circle from an area just above and posterior to the seat of the first operation, and another higher still. The bridges of bone between the trephine circles were removed by means of Hey's saw, and the brain thoroughly explored with a hypodermic needle and probe-pointed tenotome, without, however, anything being found. After this operation, as after the first, the fits were less frequent, and they varied in intensity.—March 5th: As the fits still continued patient was put on full doses of morphia.—7th: Patient much improved. No fits to-day. Morphia stopped.—9th: Patient had to be sent to observation ward to-day on account of her having developed erysipelas in her wound. She was partly insensible when she left Ward 17,

and her left side was completely paralysed.—23rd: Improved. Could move her toes.—30th: Still improving; could move her leg, but she had great pain in the limb while movement was returning.—April 9th: Readmitted to Ward 17. Could now use her left arm slightly, but it was very painful during the recovery. The pain in the leg had now ceased to trouble her.—24th: Mrs. G—— was so well that she was able to be out of bed for some hours daily. The wounds in her head had quite healed, and she could move about the ward without aid. She continued to improve, and on June 1st went home.—July 1st: Reported herself well.—Sept. 8th: The patient came back to hospital on account of a return of her fits. These were brought on by very slight causes, especially mental excitement, and they varied much in frequency, severity, and duration. The fit began by conjugate deflection of the eyes to the left and upwards, followed by spasms of the muscles of the left side of the mouth, face and neck, passing to the leg and arm of the same side, and in severe cases to the opposite side of the body. The phenomena passed off in the reverse order, the eyes coming right last of all. Between the fits there was frequently some spasm of the right sterno-mastoid, and deflection of the eyes to the right side. On the 11th Mr. Miller opened up the cicatrix, which was very tight and tense, by passing in a director and cutting along it. In this way the intracranial tension was relieved, with the result that the fits disappeared and the paralysis of the left side was distinctly improved.—Oct. 3rd: The cicatricial region was prominent and tense. Patient was put upon mercury, and in a fortnight all bulging had disappeared. The patient remained in hospital for about three weeks and then went home, where she was in her usual health, without fits and with only slight paralysis, for three months. At the end of that time she began to manifest her old symptoms, and as these increased during the next fortnight, she again returned to Ward 17.—Feb. 2nd, 1889: The fits recurred again just as they had done before, and the cicatrix was again opened up and the brain explored. As the improvement was only very slight, on March 5th, Mr. Miller removed a fourth circle of bone in front of the original one, as the symptoms referable to area 12 were the most pronounced now present. On exposing the brain, it was observed that the cortical substance was distinctly grey, having lost the pink hue of the normal brain, and was also markedly softened, so that a stream of lotion was sufficient to wash parts of it away. As usual after operation the patient's symptoms became less urgent. At this time the paralysis of the left limbs was well marked.—April 20th: Patient complained of great pain in the region of the cicatrix, which had again healed up, but was now red and swollen, showing evidences of suppuration. Temperature, which had always remained low, was now 102·2°. On the following day, Mr. Cathcart evacuated about an ounce of thick greenish pus, which relieved the pain. There was no return of fits at this time.—28th: She could now move her left leg a little, the knee reflex was present, but not well marked. The abscess was still discharging.—May 16th: Wound healed.—23rd: Complained again of pain in her head and eye, and as the cicatrix was again prominent, it was opened up and drained.—June 20th: Return of pain, but no fits. The pain gradually got worse, and the cicatricial area began to bulge again. She began to talk nonsense, and became very stupid. On the morning of the 29th she was very bad. She was quite unconscious, and later on became comatose, with stertorous breathing. Patient was put on the table in a practically moribund condition, and the brain exposed by a large V-shaped incision. The whole of the brain substance within reach was explored by means of a trocar and cannula, and while doing so Mr. Miller came on something firm and resistent in a direction directly inwards. On perforating this there was a free flow of thick yellow pus. About two ounces were withdrawn, and a drainage-tube two inches and a half in length inserted. The more urgent symptoms were relieved almost instantly, the coma passed off, the stertor disappeared, and before leaving the theatre the patient answered questions intelligently. On being dressed in the evening there was at least an ounce of pus in the dressing, and the following morning nearly twice that quantity.—July 3rd: The discharge had diminished; the patient was cheery and intelligent, but there was no improvement in the condition of her left limbs.—4th: Slight signs of compression. On pushing a pair of sinus forceps about two inches and a half into the brain, there was a gush of clear fluid, probably from the lateral sinus. Symptoms disappeared.—Aug. 2nd: Mrs. G—— gradually improved; the discharge become less profuse, and there was no recurrence of fits or pressure symptoms.—10th: The drainage-tube was removed. She got up every day for an hour or two, and had considerable power over the movements of her left leg.—12th: With slight assistance she could walk from the fireplace to her bed. Although she had fair use of the left leg, the arm remained absolutely paralysed.—14th: The patient returned to her home in Glasgow.

Dr. Carswell of that city has kindly furnished some notes of her condition after leaving the hospital. For about four months after her return home she remained in tolerably good health. The left side remained practically *in statu quo*. About Jan. 10th, 1890, she had an attack of epidemic influenza, followed by bronchitis. About a week later she became dull and listless, and gradually passed into a semi-comatose condition, which continued till her death on Feb. 10th. She had no return of her fits. Unfortunately the friends would not consent to an examination of the body.

Edinburgh.

EPILEPSY CAUSED BY IMPERFORATE HYMEN.

BY L. N. USHER SOMERS, L.R.C.S.I.,
LATE MEDICAL OFFICER OF LETTERMORE ISLAND DISTRICT.

LIZZIE K——, born June 4th, 1869, was brought to me by her mother to be treated for falling sickness, from which she had suffered off and on for about three years. She belongs to a strong healthy family. Her mother is fifty-four years of age, has enjoyed exceptionally good health, and does not remember any of her relations suffering from fits or any cerebral infirmity. She is no relation to her husband, who was strong and active up to the hour of his death, which was caused by a fall from a horse in his sixty-third year. He was a man of temperate habits, the third child of a family of ten, eight of whom are still living; no relative of his was known to suffer from epilepsy or imbecility. The patient was born at the full time, after an easy and natural labour; she is the fifth of eight children, all of whom are in excellent health. She was four years old when she had whooping-cough, and was six years old when she had measles. She has never had scarlet fever, small-pox, or any other disorder, and does not remember having received any fall or blow on her head. She began to complain about four years ago, when she became subject to what she considered repeated dyspeptic attacks, at which times she suffered from backache, sickness, constipation, flushings, loss of appetite, abdominal pains, swelling, and general discomfort, frequently from headache, and after a while from frequent desire to micturate. This condition of things having lasted for several months, the family doctor was at last consulted. She brought the prescription he gave her at that time. He prescribed:—Pil. aloes et ferri. R Decoc. aloes co., mist. ferri aromat., spt. am. ar., aq. camph. ad ʒviij.; ʒj. c. i. pil. ter die; and ordered her to put her feet in mustard and warm water at bedtime, and place a large linseed and mustard poultice over both breasts at least one night in the week, at the same time to have a liberal diet, with plenty of milk. This course of treatment, instead of relieving, seemed to aggravate the symptoms, which now assumed an intermittent character. She was completely prostrated for four or five days at a time, then she appeared to improve, and was, comparatively speaking, pretty comfortable for about three weeks, when the symptoms invariably returned in an aggravated form. On the night of May 10th, 1886, she retired at an early hour, as she did not feel quite well. She had been in bed about three hours when her mother was startled by hearing her scream; she immediately hastened to her assistance, and found her working in a fit; her eyes were fixed and staring, and she frothed considerably at the mouth. A messenger was at once sent for the nearest medical man, but before he arrived she had regained consciousness and felt quite herself again, with the exception of a slight headache. The next day and the day following she was seized with similar attacks, and was then free from them for about five months; after that time the fits became more and more frequent, and during the last twelve months she has been attacked for a few days at the beginning and end of each month. Last month she has had

as many as five fits in two days. This history was given partly by the mother and partly by the patient herself, who appeared to be an intelligent, well educated girl, about medium height, of slight build, and dark complexion. In answer to my questions, she stated her appetite was bad, her bowels costive, urine clear and healthy-looking, but passed frequently in small quantities. She suffered frequently from headache, fulness after meals, flatulence, heart-beat, and a short dry cough, which was very troublesome at times. She had never menstruated, but thought it must have something to do with her present illness, as she suffered more at the beginning and end of each month than between times. I suggested that it would be necessary to make an examination of the generative organs, but she would not hear of such a thing. However, when she undid her jacket in order that I might examine her chest, I was struck by the abnormal size of her abdomen, and putting this and her dislike to a vaginal examination together, I must say I strongly suspected that I was being imposed upon, and that what really was the matter she endeavoured to conceal; in fact, I considered she was *enceinte*. I did not express my opinion, but prescribed an alkaline mixture with bromide of potassium, and asked her to call again in a few days. She did not return; but in about two or three weeks afterwards I was asked to come at once to Mrs. K——'s, as her daughter was in a fit. I went without delay, but found she had just recovered. I ordered her to bed, and spoke seriously to the mother as to the necessity of making a thorough examination. She quite agreed with me, but was compelled to use an amount of persuasion before her daughter consented, which she finally did. I accordingly examined her in the dorsal position, and on inspection found the abdomen symmetrically enlarged and very prominent. On palpation, I could detect a central firm tumour well defined, which was evidently the uterus enlarged. On proceeding to make a vaginal examination, I found the orifice obstructed by a distinct fluctuating swelling, which felt uncommonly like the unruptured membranes in labour, and which I had little doubt was an imperforate hymen distended by some fluid in the vagina. Having made a sufficient diagnosis, I had scarcely concluded my examination when the patient was seized with an epileptic fit which lasted for over a minute; her features became distorted, the eyeballs turned up, the eyelids wide open, and the pupils dilated; the thumbs were shut close in the palms of the hands, and the limbs agitated by convulsive motions. This was succeeded by a kind of stupor and general feeling of lassitude.

Having weighed the advantages and disadvantages of the several methods recommended for the evacuation of the fluid, I decided upon dividing the hymen by a free incision, and rapidly evacuating the fluid. When I explained the nature of the case to the girl and her mother, they not only consented to allow me to operate, but in fact urged me to do so, Mrs. K—— adding that on account of the uncharitable remarks of some of her daughter's companions she was willing to incur any risk in order that she might get well. Next morning, having placed the patient in the lithotomy position and cleansed the parts well with a strong solution of Condy's fluid in warm water, I divided the imperforate hymen by a free incision which immediately gave exit to a thick sanious discharge, and allowed me to wash out the uterus and vagina with a solution of permanganate of potash, after which I placed a firm pad over the hypogastrium and retained it in position with an obstetric binder. A plug of absorbent cotton saturated in a weak solution of carbolic acid in glycerine was placed in the vagina, and an opiate administered. The patient was kept in bed and ordered a low but nourishing diet. The uterus and vagina were well cleansed with Condy's fluid in an injection which was used twice a day, the plug of absorbent cotton being changed each time. She made a wonderfully quick recovery, without a single unfavourable symptom, and at the end of ten days was allowed to get up. Though fourteen months have elapsed since the operation she has had none of her old troubles, and is perfectly free from anything like fits. Seven weeks after the operation she menstruated for two days, but since that time the catamenia have been quite regular. She has gained weight, strength, colour, and spirits to a wonderful degree, and may now, I think, be considered well.

This case, I believe, is unique and interesting in many respects. It clearly demonstrates that a medical man should not make undue allowance for female modesty at the risk of his own professional reputation and the future well-being of his patient. It is not that he ought, but it is his imperative duty, to make a thorough examination in every case where the cause of the symptoms are obscure. It also, I think, points out that dividing the imperforate hymen by a free incision is preferable to the more lengthy operation for the gradual draining away of the retained fluid by minute punctures. With ordinary antiseptic precautions the same result is attained in a quicker and equally safe method.

Holbeach.

A SIMPLE METHOD FOR ESTIMATING UREA.

BY C. W. HEATON, F.I.C., F.C.S.,
AND
S. A. VASEY, A.I.C., F.C.S.,
CHARING-CROSS HOSPITAL.

SEVERAL years ago it was suggested to us by some of our former pupils that it would be convenient if a system could be devised by which urea could be estimated easily, rapidly, and accurately without specially constructed apparatus. The hypobromite method gives results which are quite correct enough for clinical purposes, and several forms of apparatus of great convenience and simplicity have been devised for its execution. The latest and perhaps the simplest is that of Doremus, recently advocated by Dr. Cruise of Dublin.[1]

There is no difficulty in using any of the instruments which have been recommended, and it is probable that physicians will prefer to employ some one of them when it is accessible. But such instruments are not always accessible, and are easily broken; and it is in any case desirable that the medical practitioner who chances to have no apparatus at his command except the ordinary weights and measures of pharmacy shall be able, without trouble or loss of time, to make satisfactory estimations of urea. In the system arranged by us in 1884, and now for the first time described in print, absolute accuracy is not aimed at, but the maximum error of calculation is so minute as to be quite lost in the greater errors due to variations of temperature and pressure, and to imperfect measurement which are incidental to any rapid process which depends on the measurement of the nitrogen and expelled by alkaline hypobromite. It is well known that this nitrogen amounts approximately to 92 per cent. of the total nitrogen of urea. The apparatus required is of the simplest character. In addition to the ordinary pharmaceutical measures, all that is really necessary is a thistle-headed acid funnel, about one foot of glass tubing and a couple of bottles. It is well to assume that no other appliances are available. The reagents are bromine and caustic soda.

The following arrangements are made:—1. An eight-ounce bottle of any form is fitted with a thistle-funnel and bent glass delivery tube, as though for the preparation of hydrogen. The lower end of the funnel should be bent upwards, like a small hook, to prevent gas from passing up it. 2. A small basin or breakfast cup may be used as a pneumatic trough, a four-ounce, or larger, bottle of any form being filled with water and inverted in it in such a manner that the end of the gas delivery tube can readily be brought under the mouth of the bottle. 3. A 40 per cent. solution of good commercial caustic soda is prepared. For example, half a pound avoirdupois of soda may be dissolved in water and when cold diluted to one pint.

The analytical process is as follows:—1. Into the gas generator is poured by means of the funnel one fluid drachm of bromine washed in by ten fluid drachms of the soda solution. The generator may then be immersed in cold water, and the inverted bottle of water placed over the end of the delivery tube. 2. Two fluid drachms of urine, very carefully measured, are added and washed in by exactly one fluid drachm of water. The three fluid drachms so added will of course cause an equal volume of air to pass into the receiving bottle. This is allowed for in the appended table. The generator is gently shaken; brisk effervescence takes place, and gas equal in volume to the liberated nitrogen is collected in the receiver.

[1] THE LANCET, March 22nd, 1890.

The generator should be kept as nearly as possible at the temperature of the air. 3. When the evolution of gas ceases, the receiver is removed from the basin by means of the thumb or a glass plate and placed mouth upwards on the table. It is now only necessary to measure in minims the quantity of water required to fill it. After deducting 180 (which may be taken as 200) minims due to the air displaced by the urine, each 100 minims of water added represent 0·25 per cent. of urea in the urine examined. If the urine contains more than 3 per cent. of urea, it is best to dilute it with an equal volume of water before making the determination.

The following table gives the percentage of urea corresponding to the volume of gas liberated, as shown by the quantity of water required to fill the bottle:—

Minims of water required.	Percentage of urea.	Minims of water required.	Percentage of urea.
200	0·00	900	1·75
300	0·25	1000	2·00
400	0·50	1100	2·25
500	0·75	1200	2·50
600	1·00	1300	2·75
700	1·25	1400	3·00
800	1·50		

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

THE INHALATION OF BROMIDE OF AMMONIUM FUMES.

BY THEODORE MAXWELL, M.D. CAMB., B.SC. LOND.

THE value of the fumes of chloride of ammonium as an inhalation in some kinds of bronchial catarrh, and in oro-nasal catarrh, where the orifices of the Eustachian tubes are thickened and blocked up, causing more or less impairment of hearing, is so well recognised that there is no need to refer to it at length. It occurred to me, some two or three years ago, that if I could obtain bromide of ammonium fumes they ought to prove even more valuable than those of chloride of ammonium in cases where a good deal of spasm exists, causing dyspnœa, as in winter cough and bronchial asthma. Of course the ordinary solution of hydrobromic acid used in dispensing was useless for the purpose. I then tried one of triple strength, which is sold by some houses. This was equally useless. I then had a very much stronger acid prepared for me, the specific gravity of which was 1·7. With this and the ordinary solution of ammonia I managed to produce very good fumes both in a Verreker's and in a Kerr's chloride of ammonium inhaler, but it was impossible to get them neutral, or at least to keep them so for many minutes, and the inhalation of too much hydrobromic acid is very irritating. I tried this inhalation with several patients suffering from bronchial asthma, and generally found a few whiffs relieved the wheezing in a surprising manner. Latterly I have been using an apparatus devised for chloride of ammonium by Dr. Patrick Maxwell of Dublin, constructed on a different principle, where the chloride or bromide of ammonium is simply vapourised by heat, and drawn through a kind of wash-bottle into the lungs. I have used the bromide in true asthma, and find that if inhaled just as the attack is coming on it will frequently avert it entirely. From what experience I have had I am disposed to think that the inhalation of bromide of ammonium fumes will prove of great benefit to many sufferers from various forms of asthma.

Woolwich.

A NOTE ON HYDROPHOBIA.

BY SIDNEY A. BONTOR, M.B., B.S.

AT the present time, when the interest taken in the study of hydrophobia is almost universal, the following short note, illustrating as it does some of the associations of the disease, rather than its clinical history, to which attention has been chiefly directed, may be of some interest, more especially as Dr. Ruffer, in his lecture before the Society of Arts on Dec. 4th, 1889, drew attention to several cases, published in the "Annales de l'Institut Pasteur" and elsewhere, where two or more persons being bitten by the same dog, those who underwent inoculation remained well, and those who did not submit to the treatment died of hydrophobia.

At the end of October, 1888, two boys of about the same age were bitten each on the hand by the same dog, one being bitten the day after the other. Both wounds healed readily, and little was thought of the occurrence until about three weeks afterwards, when the boy first bitten showed symptoms of hydrophobia, and died after an illness of three days and a half. That there might be no doubt as to the accuracy of the diagnosis, a portion of the spinal cord was sent to Mr. Victor Horsley, who kindly inoculated five rabbits with it. They all developed unmistakable symptoms of rabies, while the incubation period in no case exceeded five days. Since that time I have kept the other boy who was bitten under observation, and he was seen quite well only a few days ago, nearly fourteen months having elapsed since he was bitten. How can his immunity be accounted for? For my own part I fancy that the reason lay in the fact that this boy was in robust health, while the boy who died was ill-fed and of a weakly nature, and that the vital energy of the boy last bitten was sufficient to overcome the vital energy of the hydrophobic germ, if I may so call it, or, in other words, that the germ did not find a suitable nidus; while in the case of the boy who died, the vital activity of the various functions of the body being impaired, the germ was able to thrive and multiply.

The question arises also as to how the dog became infected. It was an Irish retriever, of sulky habits, generally kept chained in a yard which was kept closed during the day, so that other dogs were hardly ever known to go into it, none having been seen there for some time before the occurrence under notice. The dog had been bitten once, but that was three years previously. It was killed the day after biting the second boy, but entirely without suspicion that it was suffering from hydrophobia, a slight increase in its sulkiness only having been noticed. When killed there was no wound upon the dog, nor had it been known to have had one for some time before. No other case of hydrophobia had been heard of in the district. How, then, had the dog become inoculated?

As a final note, I would draw attention to the fact that the wound of the boy who died was cauterised with nitrate of silver by a chemist within three minutes of its being inflicted, while that of the boy who survives was left entirely without treatment. I add this not to draw an argument for the general from the particular, but because I believe that the very common practice of using nitrate of silver is but rarely of benefit, while the slough that ensues is frequently a source of trouble, and this case points to the argument already well known, though apparently not sufficiently so, that unless nitrate of silver is applied immediately after the bite, its value is practically *nil*, and its use therefore to be avoided.

Great Berkhamsted.

ACUTE NEPHRITIS FOLLOWING INFLUENZA.

BY E. MANSEL SYMPSON, M.D., B.C.CANTAB., M.R.C.S.

VERY rarely, if I may judge from the silence kept by the text-books on this subject, is nephritis a sequela of influenza. Hence a case which has been under my care recently may be of some interest.

A. B——, a schoolboy aged eleven, had an attack of influenza at the beginning of March this year. Many of his neighbours and some of his own household were suffering from it at the time. He complained of great pain in his back and head (chiefly across and just over the eyes), sickness, and actual vomiting. He had no coryza for several days, till the attack, gradually passing off, seemed to end in a severe cold. He was left in a very weak state, the symptoms lasting about a fortnight. On March 16th he was seized with constant vomiting, great lumbar pain, fever, and headache. In the course of a day or two his ankles were noticed to be swollen, towards evening his legs and thighs swelled, and one evening his abdomen; also he passed a very small amount of urine. On March 23rd, when I first saw him, the note is as follows:—Present condition: Face puffy round the orbits, and very pale; tongue large and flabby; pulse rather

feeble, 80; temperature 100·2°; ankles œdematous and pitting on pressure; no apparent swelling above the calf of the leg; skin dry and harsh. No specimen of urine could be obtained that day. He was very thirsty, very sick, and his bowels had not been open for three or four days.—March 24th: Rather better; skin moist; has perspired freely; is not so sick, and has passed quite a pint of urine in the twenty-four hours; it was very acid, specific gravity 1015, with one-eighth of albumen. Microscopically there were some beautiful hyaline casts and a few red blood-corpuscles.—26th: Sleeps much better; has no headache or lumbar pain; has not been sick since the 24th. His bowels have been kept freely open. In the last twenty-four hours he passed two pints of urine, which was acid, specific gravity 1015, with only one-sixteenth of albumen present. No casts could be found. His feet and ankles had not swollen since the 24th. His temperature was normal, and his pulse, which had become much stronger, 68. There was no swelling of his face, and he had a little more colour.—29th: Pulse 54, strong and steady; he has passed two pints and a half of clear urine, acid, specific gravity 1020, with a trace of albumen. On April 1st he was still going on well; over three pints of urine were passed daily. The results on analysis were similar to those in the last note, only the trace of albumen was very slight. Since then he has continued improving in a very satisfactory manner. A curious point in the case is the family history. His maternal grandmother suffered for years with renal calculus, while his mother passes gravel occasionally, and has done so for a long time. This may serve partly to explain the attack of nephritis after influenza: an hereditary weakness or predisposition.

Treatment.—This consisted chiefly in absolute rest in bed between the blankets (he was wearing also a flannel shirt) in a warm room, milk diet, light puddings, gruel, &c., with some fish and broth as he improved. His bowels were kept well open, and he had half an ounce of the following mixture every four hours at first, and later only twice in the day:—Tincture of digitalis, one drachm; liquor ammoniæ citratis, one ounce; spirit of nitrous ether, half an ounce; water to eight ounces. On April 1st this was changed for a mixture containing liquor ferri magnetico-phosphatis. Regarding influenza as a general poisoning of the system, one might have expected, on the analogy of diphtheria, that some of the stress of the disease would fall on the kidneys. But, as said above, this seems very rare. Graves[1] says that in one case there was much swelling of the legs and feet, but he seems to connect no dropsy in this complaint with any disease of the kidneys. The lad was unfortunate, I think, in two things—his hereditary proclivity to kidney disease, and the long hold the influenza had of him. I shall be much interested to hear of any similar case.

Lincoln.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

THE SEAMEN'S HOSPITAL, GREENWICH.

VENTRAL HERNIA; OPERATION; RECOVERY. FIBROMA OF THE UMBILICUS; OPERATION; CURE.

(Under the care of Mr. JOHNSON SMITH.)

VENTRAL HERNIA is most commonly met with in the middle line, the protrusion taking place between the recti muscles, and is apparently due in the majority of instances to yielding of the linea alba during parturition. It is comparatively uncommon in the male; this case, however, presents an example of the gradual formation of such a hernia in a healthy sailor, probably as the result of strain. It does not appear that omentum formed any portion of the hernia, yet the symptoms were those produced by protrusions in the epigastrium which contain that structure, and were relieved by the operation. Although these hernia in the male seldom become strangulated, they may cause much local tenderness and discomfort. The second case is interesting as an example of the formation of a tumour in a situation where growths are rare in the adult, also of the difficulty in estimating the extent to which it may be necessary to carry the incisions in the removal of tumours of the abdominal wall. We have recently published cases of tumours in that part of the body in which it was necessary to open the peritoneal cavity and remove the adherent peritoneum.[1] For the notes of these cases we are indebted to Mr. Robert Robson, house-surgeon.

CASE 1. *Hernia of subperitoneal fat in linea alba.*—J. R——, aged forty-two, a seaman, short, broad chested, and healthy looking, was admitted to the Seamen's Hospital in December, 1888. During the past seven years he had been troubled with a small soft swelling below the breast bone. The patient stated that there was much pain in this swelling, especially after walking; radiating pains also over the front of the chest. He suffered much from dyspepsia, and, he asserted, occasionally vomited after a meal. In the middle line of the anterior abdominal wall, just two inches above the umbilicus, there was a soft, irregularly shaped, compressible tumour two inches and a quarter in diameter, which stretched over a little more to the right than to the left side. There was weakness of the abdominal wall for some little distance round this swelling. Pressure of a bandage or plaster on the tumour caused much uneasiness. The patient was very anxious to have some operation performed. On Dec. 18th, chloroform being administered, a vertical incision three inches long was made over the tumour, which at once exposed a circumscribed mass of lobulated fat; this resembled omentum, but was not covered by a sac or any membranous investment at all resembling peritoneum. This mass of fat was continuous by means of a small pedicle with subperitoneal fat; the pedicle passed through a small orifice of the size of a No. 12 catheter in the linea alba, which orifice was oval, and had smooth, rounded margins. After a silk ligature had been applied to the pedicle, the opening in the linea alba was enlarged, and the little finger was passed through. It could be moved freely in all directions in a space between the muscles of the abdominal wall and the peritoneum. The pedicle having been returned into this space, the edges of the enlarged opening in the linea alba were brought together by three sutures, one of wire and two of silk. The wound was dressed antiseptically, dusted with iodoform, and covered with wood wool. For twenty-four hours after the operation there was occasional vomiting of thin fluid, but no tenderness in the abdomen. The wound healed rapidly, and the patient, making a good recovery, was discharged as cured on Jan. 14th, 1889.

CASE 2. *Fibroma of the umbilicus.*—M. K——, aged thirty-five, a fireman, was admitted into the Seamen's Hospital, Greenwich, with a small tumour of the umbilicus, observed for the first time about three months previously and shortly after he had received a violent blow in the umbilical region. This tumour, up to the time of admission, had increased in size steadily, but slowly, and latterly had caused much uneasiness and at times a dull, throbbing pain. The patient, who was a tall, thin man, stated that he had not lost flesh since the above-mentioned injury. He had no recollection of any instance of tumour or cancer in his family. The umbilical cavity was completely obliterated by a prominent firm growth, the margin of which was continuous with the skin of the abdominal wall. The visible portion of the growth was circular, and had a diameter of one inch and a half. Its surface presented a warty appearance, and was covered by elongated papillary growths, varying in size, and flattened laterally by mutual compression. Notwithstanding the depth of the interspaces between these growths and the prominence of the tumour, which must have rendered it liable to the friction of clothes, the surface of the tumour, which was of a light pink colour, was quite unbroken and free from discharge of any kind. This prominent and warty growth was seated on and continuous with a very hard thick growth, extending all round into the thickness of the abdominal wall and forming a subjacent swelling about three inches in diameter; this was

[1] Graves' Clinical Medicine. New Sydenham Society's Series, vol. i., p 491.

[1] THE LANCET, 1889, vol. i. p. 651; ib., vol. ii. p. 852, "Mirror of Hospital Practice."

freely movable in every direction, and did not seem to be connected with any intra-abdominal structure.

On Aug. 3rd the tumour was removed. The superficial and warty portion was enclosed between two semilunar incisions made through the skin, and then, together with the deep portion, was dissected out. It was found necessary to cut through the peritoneum, and towards the end of the operation small intestine and omentum were freely exposed. The patient made a speedy recovery without any rise of temperature or other bad sign. The tumour measured one inch and three-quarters in thickness. On section it presented a dull white colour, and its substance, which was of almost cartilaginous hardness, was directly continuous, without any well-defined margin, with the surrounding fat and other tissues. The excised portion of peritoneum, though intact at all points, was very closely adherent to the growth and drawn up into its structure near the middle of its posterior surface, from which point a well-marked band of fibrous tissue, probably the cicatricial remains of the cord, extended through the tumour to its anterior warty surface. The tumour on section presented to the naked eye an appearance very similar to that of a recent specimen of cancer of the mamma.

The following report, together with drawings of sections, on the microscopical appearances of this growth, have been kindly supplied by Dr. Otto Kauffmann. "The tumour on microscopic examination was found to consist of fibrous tissue, very fully developed and free from all embryonic characters. At one spot only some large cells were found aggregated in a manner somewhat suggestive of malignant epithelial growth, but the extent of this formation was so limited as to lead to the conclusion that a papilla had here been cut across. Even an extremely hard scirrhus could not have shown such an absence of epithelial elements. The growth may therefore be called a fibro-papilloma."

RADCLIFFE INFIRMARY, OXFORD.

THREE CASES OF ABDOMINAL SECTION; REMARKS.

(Under the care of Mr. H. P. SYMONDS.)

THE recent discussion at the Medical Society[1] on the present position of abdominal surgery has attracted much attention in the profession, and it is a cause for congratulation that the advance in this department of surgery has been so marked during the last few years. According to Dr. Meredith, who introduced the discussion, it was not until 1877 that the pedicle after ovariotomy was treated by the intra-peritoneal method as a matter of routine, and it is since then that the use of antiseptics has aided in improving the results obtained. Although some of those who took part in the discussion do not employ the antiseptic plan of treatment, all agreed in the necessity of thorough cleanliness during the operation. Before 1887 few country hospitals could show a succession of three cases cured by operation without any complications during the after treatment, whereas it is not uncommon at the present time to find that such success is frequently attained, as in the cases under Mr. Symonds recorded below.

CASE 1.—E. P——, aged twenty-eight, was admitted on April 3rd, 1889, with swelling of the abdomen, which she had noticed for two years, and it seemed to be getting larger; she had no pain. On admission the abdomen was enormously distended, absolutely dull on percussion, except quite in the flanks; no alteration in dulness on changing position. Abdominal girth 46 in.; superficial veins enlarged. On vaginal examination the uterus was rather low down, fulness in vaginal roof both in front and behind the uterus. Sound entered in normal direction 2½ ins. On April 10th the abdomen was opened in the middle line below the umbilicus, the patient being under ether. One large ovarian cyst was found with smaller ones at the upper part, which were afterwards drained into the large cyst. No adhesions. The cyst arose from the left ovary. The pedicle was transfixed and tied with stout silk. The other ovary was removed. The abdominal wound was stitched with silk, and dressed with alembroth wool and gauze. Spray used, no drainage-tube. The patient made an uninterrupted recovery. The highest temperature reached was 100·2°. She was discharged cured on May 4th, 1889.

CASE 2.—E. B——, single, aged twenty-nine, was admitted on June 22nd, 1889. The patient complained that her abdomen had been increasing in size for over two years. She first noticed fulness at the lower part. She began to menstrurate at fourteen, and was always regular till pregnancy, five years ago. After this her periods were again regular until two years ago, when they ceased for seven or eight months, again becoming regular, but being very scanty. On admission, the abdomen was considerably distended, more so on the left side than on the right. Skin covered with numerous old striæ; linea alba deeply pigmented. Fluctuation easily obtained across the abdomen. When the patient lay on her back, the whole of the abdomen was dull on percussion, even in the flanks; but when turned on her side, the uppermost flank gave a resonant note posteriorly. The perineum was torn, the cervix lacerated bilaterally, and the uterus lay low down in the pelvis, and was markedly retroflexed and fixed; sound only entered a very short distance.

July 5th.—Ether was given and the abdomen opened by Mr. Symonds in the usual position. Cyst readily exposed; quite free from adhesions; a large trocar was inserted and several pints of fluid removed. The pedicle was found to come from the left side; it was transfixed and ligatured in two parts, and returned into the abdomen. Right ovary, which contained two or three small cysts, was then removed, the pedicle being treated in the same way. After the sutures had been passed through the edges of the abdominal wound, there was found to be a considerable quantity of blood in the peritoneal cavity; uterus pulled forwards into wound and both pedicles brought into view, when the ligature on the left was found to have slipped. A fresh one was applied, and the peritoneum mopped out. The spray was used and sal alembroth dressings. The patient made a good recovery, and was discharged on Aug. 3rd.

CASE 3.—E. J——, aged twenty-five, was admitted on July 3rd, 1889, suffering from an abdominal tumour. The patient stated that she had been married six years, and has had three children, the youngest being now fifteen months old. Her last confinement was easy, the labour lasting only about four hours. A week afterwards she was seized with pains in the right side of the abdomen resembling labour pains, which lasted about three days, but were not sufficiently severe to confine her to bed. At this time she noticed a small lump in the right iliac fossa, which has steadily increased in size. She has had similar attacks of pain since then, and had one a week before admission, which confined her to bed. She menstruated regularly till marriage, but has been very irregular since her first pregnancy. She says that she was "poorly" for two or three days two months after the birth of the last child, and then did not menstruate for eleven or twelve months (i.e., about March last), since which time she has seen nothing. In the lower part of the abdomen, filling up the right iliac fossa, was a firm rounded tumour, somewhat softer and semi-fluctuating over its centre, dull on percussion, and movable, though it seemed to be more or less adherent to the umbilicus. It extended to about two fingers' breadth above the level of the umbilicus, and to about a similar extent to the left of that point. It did not contract when grasped or rubbed by the hand. It appeared to extend down into the pelvis. On vaginal examination the sound passed three inches and a half; the tumour could not be made to move with the uterus. No pedicle could be felt. Urine normal.

July 8th.—Sound again passed; it entered two inches and a half, and when withdrawn was smeared with blood.

9th.—Patient commenced with labour pains about midnight, and was delivered of a fœtus (about four months) at 3 A.M. Slight difficulty with placenta; no bleeding.

Aug. 3rd.—The tumour remains about the same size, and does not appear to be in any way connected with the uterus. At this time the patient refused to be operated upon, and was discharged.

Nov. 6th.—Readmitted. Tumour if anything very slightly larger than when discharged.

12th.—The patient being under ether, Mr. Symonds opened the abdomen in the middle line, below the umbilicus, by a four-inch incision. A semi-solid tumour was found just to the left of the middle line, and with the pedicle springing from the left ovary. A small piece of omentum adherent to the anterior surface of the tumour was ligatured and divided. The fluctuating part of the mass was then tapped and about an ounce of oily fluid withdrawn. Pedicle transfixed and tied with stout silk, and then

[1] THE LANCET, vol. i. 1890, pp. 835, 858, 904.

divided. No hæmorrhage. Six deep silk sutures used to close abdominal wound. Spray used. Sal alembroth dressings. The mass removed was found to be a single cyst, which contained some fat (oily fluid consolidated), and a large quantity of light-coloured hair and two teeth, also an elongated plate of bone about one inch long and a quarter of an inch broad. Patient made an uninterrupted recovery, and was discharged cured on Dec. 7th, 1889.

Remarks.—In these and other abdominal operations strict Listerian precautions are carried out. Carbolic acid is the antiseptic used, and the operating staff employ it freely for cleansing hands and forearms before and during the progress of the operation. It is also used for the instruments, sponges, ligatures and sutures, and operating room. Care is taken to keep the patient warm, and in the after-treatment the patient is placed in a warm bed with the knees raised over a pillow, and a few pieces of crushed ice with four drops of lemon-juice put into the mouth. No nourishment is given for twenty-four to thirty-six hours, no solid food before the sixth day; if any stimulant is required, it is given by the rectum. A catheter is passed every six hours. The room is kept quiet and darkened, no one but the nurse being allowed in it.

Mr. Symonds expresses his thanks to Mr. Pratt for the notes of the cases, also for his care and attention bestowed on the patients whilst in the hospital.

GENERAL HOSPITAL, BIRMINGHAM.

PECULIAR CASE OF STRANGULATED INGUINAL HERNIA; REMARKS.

(Under the care of Mr. HASLAM.)

THE condition represented in the account of the following case, for which we are indebted to Mr. D. R. P. Stephens, is one which seldom presents itself to the surgeon. The hernia appears to have been of the acquired form, and the intestine was partly protected by omentum, so that one would not expect gangrene of the strangulated portion to have ensued after four days only, neither would one expect such an extensive cellulitis of the scrotum to follow so rapidly. It is more probable that the patient lost count of time, and that the hernia had been down for some days longer. With regard to the appearance of gangrenous intestine, Sir James Paget[1] says: "Colours about which there can be as little doubt, for signs of gangrene, are white, grey, and green, all dull, lustreless, in blotches, or complete over the whole protruded intestine. I cannot tell why there should be so many colours in different cases, or sometimes in the same case; but all are alike certain signs of gangrene, and they are always combined with loss of due tone and texture of the intestinal wall. Intestine with these marks, even though they be small, must not be returned."

T. W——, aged thirty, was admitted to the General Hospital, Birmingham, on March 27th, at 7 o'clock P.M. The patient stated that four days ago he noticed a "lump" in his scrotum on the right side, and that since then he had suffered from absolute constipation and vomiting. He was too collapsed to give details of his illness. On admission he was a badly nourished man, with a typically "abdominal" expression of face. His tongue was furred and dry; his pulse 180, quick and feeble. His abdomen was very distended, tympanitic, motionless, and tender to touch. His scrotum was uniformly enlarged, dark maroon in colour, very tense, dull on percussion, and gave no impulse on coughing. His testes were not to be felt on either side, owing to fulness and tenseness of the scrotum. There was a hard swelling on each side, in the region of the canal, more marked on the right than on the left side. The perineum was also tense, and distended as far back as the base of the triangular ligament. The whole appearance of the genitals closely resembled that produced by extravasated urine. At 8 o'clock P.M. Mr. Haslam cut down on the right side over the canal and scrotum. The patient was now nearly moribund. On incising the swelling the coverings of the sac were found to be very thick, dense, and matted together. On opening the sac some pus at first escaped, and then some dark-coloured serous fluid. In the sac was a mass of deeply congested omentum; and under it, and pressed on by it, was a loop of small intestine, deeply congested, except in three places (each about the size of half a crown), where it was milk white in colour, but had not lost its glossy appearance. The strangulation was relieved, and the omentum ligatured and cut off. There was no hernia on the other side, only thickened scrotum. A catheter was passed and no stricture found, or any sign of extravasated urine. At 1 A.M. the patient died.

Necropsy.—There was found acute general peritonitis. The gut above the stricture was much dilated. On examining the strangulated loop of gut, which was a few inches from the cæcum, it was found that where the white patches were the mucous and muscular coats of the gut had sloughed off, leaving only the peritoneal covering.

Remarks by Mr. STEPHENS.—I have to thank Mr. Haslam for allowing me to publish the case. It is interesting, as but for the constitutional symptoms and the peritonitis the case would certainly have been diagnosed as one of extravasation of urine; and, again, the condition of the gut, with its peculiar glossy, milk-white patches, giving it a piebald appearance, is certainly not common.

[1] Clinical Lectures and Essays, p. 144.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Special General Meeting.—Persistent Lingual Duct.—Uterine Myoma becoming Sarcomatous.—Ulcerative Endocarditis with Aneurysm and with Amyloid Disease.—Tubercular Disease with Multiple Hepatic Abscesses.—Duct Carcinoma of Breast.

AT the commencement of the proceedings of this Society on May 6th a special general meeting was held to consider certain alterations in the by-laws proposed by the Council. It was recommended that the annual general meeting should be held in May instead of in January, and that the president, vice-president, treasurer, secretaries, and council should be elected by ballot at the general meeting and take office at the first meeting in October. Mr. Alban Doran proposed as an amendment that the Transactions of the Society should be published at periods corresponding with the calendar, and not with the medical year. This was seconded by Mr. E. Willett. The President pointed out in defence of the present method of publication that the long vacation was of advantage to the secretaries in giving them time to prepare the volume, and to the incoming President for the purpose of composing his inaugural address. The amendment was then put and lost, and the original proposition carried. The Surgical Secretary then proposed that the first by-law of the Society should be altered so as to read as follows:—"The Pathological Society of London is instituted for the cultivation and promotion of Pathology, by the exhibition and description of specimens, drawings, microscopic preparations, casts or models of morbid parts, and also by the communication of chemical, experimental, or other researches or observations relating to the nature and results of disease, and by discussions thereon." A similar alteration in the fifty-third by-law was also proposed. Mr. Roger Williams advocated the change, but Dr. Norman Moore hoped that the effect of the alteration would not allow members to omit the necessity of bringing to the Society some specimen to illustrate their papers. The President thought it unwise to limit the members too narrowly, and pointed out that in a chemical research, for instance, the exhibition of the products of the reactions might be of no educational value. The proposition, on being put to the meeting, was carried unanimously. The business of the ordinary meeting was then proceeded with.

Mr. RAYMOND JOHNSON described two cases of Persistent Thyroid Duct. The first case was that of a girl aged fifteen years, who at the age of ten first noticed a small swelling in the front of the neck, which was opened and pus evacuated. It continued to discharge. When admitted, under the care of Mr. Beck, at University College Hospital, a rounded cord passed downwards from the hyoid bone to a sinus an inch and three-quarters above the sternum. The fibrous cord was dissected out; it lay beneath the deep fascia between the sterno-hyoid muscles, and at its upper

end was firmly attached to the deep surface of the hyoid bone. Two months and a half later a small opening continued to discharge an occasional drop of mucus, and a fine probe could be passed upwards more than half an inch towards the base of the tongue. The fibrous cord contained a fine lumen in its whole length, and was lined with a thick layer of stratified epithelium having a distinct papillary arrangement. The second case was that of a female child aged six years, in the middle line of whose neck a small swelling appeared at the age of four years. It soon burst, and continued to discharge pus. When admitted under Mr. Barker's care a small depressed sinus was situated over the thyroid cartilage, and from it a fine rounded cord passed up to the hyoid bone. The treatment was the same as in the above case, and the wound healed rapidly. There was a fine lumen, but no epithelial lining could be demonstrated. In each case it was believed that the lower part of the thyro-hyoid duct had remained partially unobliterated, and an external opening had formed as the result of suppuration around the lower end of the tube. In the first case the lingual portion of the duct—viz., that above the hyoid bone—had only partially closed. Reference was made to Mr. Bland Sutton's classification of these cases, and also to a case described by Cusset in a monograph on Branchial Fistulæ, published in 1877. In a girl aged five years and a half a fine canal lined with ciliated epithelium led from the hyoid bone upwards towards the base of the tongue, and opened externally below the hyoid as the result of suppuration.—Mr. BRUCE CLARKE said that in one case under his care he had been obliged to operate four or five times; the lining membrane was removed and epithelium was discovered in the débris. Cases like these were spoken of by the French writers as enlargements of the bursa of Béclard, and perhaps some of them were of bursal nature.—Mr. ROGER WILLIAMS inquired as to the significance of the duct.—Mr. JOHNSON, in reply, could not furnish any explanation of its presence.

Mr. ALBAN DORAN exhibited a Myoma of the Uterus becoming sarcomatous, which was removed from a woman aged thirty-one by Mr. Thornton. It had been observed for four years, and grew rapidly during the last few months before operation. It sprang from the fundus, the uterine wall forming a complete and extremely vascular capsule. The tumour contained much blood, and was, on section, of a uniform pale yellow colour, free from calcified or softened patches, cysts, effused clot, or sinuses. It was mostly made up of well-formed, plain muscle cells, but also included large collections of relatively short spindle-cells, with broad, oval nuclei. No metastatic deposits had developed, but the case resembled another exhibited by Dr. Finlay before the Society in 1883, which, on clinical evidence alone, was clearly more advanced; widely spread secondary deposits were discovered. Mr. Doran, therefore, considered that the tumour now exhibited was either a myoma in an active though very early stage of sarcomatous change, or else a "soft fibroid"—a class of tumour which did not usually cease growing after the menopause, and, as von Winiwarter had already noted, behaved clinically like a sarcoma.—Mr. SHATTOCK suggested that the sarcoma originated from the connective tissue contained in the tumour itself, and did not arise by metaplasia from the proper contractile elements.—Mr. ROGER WILLIAMS thought that such a case was an argument against Cohnheim's hypothesis that the majority of neoplasms arose from embryonic rudiments.—Mr. DORAN, in reply, said that he could not dogmatise on the mode of origin of this growth, though he fell in with Mr. Shattock's suggestion. He said that myoma was more often pure than was generally supposed, and it had been suggested that it was built up of cast-off cells derived from uterine arterioles. The precise manner in which some of these tumours developed malignant characters was still uncertain, but he thought that the truth lay between the development of sarcomatous elements from the interstitial tissue and the theory of von Winiwarter, that the muscle cells took on a sarcomatous change after the menopause.

Dr. NORMAN MOORE then brought forward two cases of Ulcerative Endocarditis. He showed the heart of a man aged thirty-seven, whose illness commenced with a severe pain in the right groin and a hard swelling was to be felt there. Later it subsided, but there was no pulse to be felt in the left femoral artery, and that in the right was feeble. Three weeks later there was no pulse in the right wrist and the patient complained of severe pain at a spot above the umbilicus; an obscure tender swelling was to be felt in the abdomen, and there was a loud systolic and diastolic basic cardiac murmur. He had suffered from rheumatic fever a year before, and had had frequent epileptic fits, the latter stopping during his illness, which terminated in a fatal result in nine weeks. Extensive fungating growths were found on the aortic valves, and there were firm clots in the right brachial and both femoral arteries; the clot in one of the latter accounted for the hardness felt in the right groin. An acute aneurysm was found in the main artery of the pancreas, and he held that its presence alone was sufficient evidence of ulcerative endocarditis, for there was no general vascular degeneration. The second case occurred in a boy aged fourteen, who was under observation nearly six months. He had indefinite pains about the body, and a loud double basic and systolic apical cardiac bruits. A few weeks before death paralysis of the right side developed. There were vegetative growths on the aortic and mitral valves and all over the interior of the left auricle. There was a large infarct in the spleen and scars in the kidneys. The liver and spleen presented marked, and the kidneys early, amyloid degeneration.—Dr. ANDREWS observed that often more than one organism could be found in the vegetations from these cases. From the first case he exhibited sections from the brachial embolus containing clusters of streptococci, which showed chains under a high power. No organisms were present in the kidneys or spleen. In the second case two kinds of organisms were present in the valve vegetations, there being colonies of small transparent growths like the diplococcus pneumoniæ, and an uncommon variety of streptococcus, which grew on agar-agar but not on gelatine.—Mr. H. TAYLOR had seen a case in which both sides of the heart were affected; there was a pulmonary aneurysm and an aneurysm of the thoracic aorta communicating with the pulmonary artery. He had found micrococci in the vegetations of cases which were not ulcerative, and in one case of ulcerative endocarditis he had found in the spleen a great variety of organisms, including many long bacilli.—The PRESIDENT asked if any cause of the lardaceous disease other than the endocarditis was present? He had seen lardaceous disease lead to endocarditis, but not the contrary. He inquired if there were any signs of syphilis.—Dr. MOORE replied that there was no sign of syphilis, and there was nothing else pointing to the cause of the lardaceous disease. The connexion of the affection with an organism almost pyogenic was suggestive.—Dr. ANDREWS said that long bacilli were almost invariably present in the spleen, both of man and animals.

Dr. HECTOR MACKENZIE showed a specimen of extensive Tubercular Disease of the Liver, from a man aged fifty, who had died in the Royal Free Hospital last November, under the care of Dr. Sainsbury. The man, according to his own account, had only been ill some fourteen weeks before death; but for the latter nine weeks of this period he was confined to bed suffering from shortness of breath, perspirations, loss of flesh and strength, and pain on the right side of the chest. Before admission he had been delirious, and he was sent to the hospital as having had acute pneumonia. During the four weeks he was in the hospital he gradually got weaker. The pain in the right side continued, and there was tenderness in the region of the liver, the edge of which could be felt about an inch below the ribs. There were physical signs in the lungs at certain points, such as were usual in cases of phthisis. The temperature at no time was high, but for the most part ranged between normal and 100° F. Some days before death signs of pleurisy, with effusion, developed on the right side. Four of his brothers had died of consumption. The patient had been a heavy drinker, principally of rum, but gout was the only previous illness he had had. At the necropsy there was recent pleurisy with a considerable effusion on the right side, and the right lung was collapsed. What looked like ordinary tubercular disease existed in both lungs, but principally in the left, where there was consolidation, caseation, and small cavities in the middle part of the upper lobe. With the exception of one small ulcer in the upper part of the ileum, no other change was found in any organ except the liver. The liver was drawn over considerably to the right, so that the interlobar notch was situated about the junction of the ninth and tenth costal cartilages, while most of the right lobe was inaccessible from adhesions. Immediately above the right kidney there appeared to be a large globular mass feeling like a cyst with thick walls. The liver, diaphragm, kidney, supra-renal and duodenum had to be removed *en masse* before the nature of

the case could be determined. When the adherent parts were separated from the liver the right lobe was seen to present a very remarkable appearance. The liver to the right of a vertical section through the notch for the gall-bladder was extensively diseased, while the remainder was apparently healthy. The gall-bladder, although it had formed adhesions to the liver, was itself unaffected by disease. It contained a few small gall-stones, but its mucous membrane and that of its duct were quite healthy. The portal fissure and the vessels there were also normal. The diseased part of the liver was shrunken to about two-thirds of the normal size. Its capsule was thickened and its edge rounded off. The globular mass already referred to was situated in the lower part, immediately to the right of the gall-bladder. It was about the size of a Jaffa orange. The capsule of the liver was quite continuous over it. Most of the surface of the affected part of the liver unoccupied by the tumour was studded with yellow prominences, varying in size between a shilling and a threepenny piece. On making sections through the larger and smaller tumours, it was found that the former contained in its interior a soft pultaceous mass of a purple colour, consisting of broken-down caseous material mingled with altered blood. The cavity left after the removal of this matter was one which was separated from the surface in its lower half only by a layer of tough connective tissue. Posteriorly this wall was hard and calcareous. The cavity wall in the upper half was ragged and reticulated, being formed by the liver substance itself. The smaller masses, which were quite as numerous in the interior as on the surface, were found to consist of soft yellow caseous material surrounded by connective tissue walls. The contents of these masses readily escaped from the cut surface, giving the appearance of cavities. Microscopic examination showed the disease in the liver to be tubercular. Quite typical tubercles, with giant cells and surrounding small-celled tissue, were abundantly seen in the circumferences of the masses whose centres had undergone the softening degenerative process. Great care was taken in looking for actinomycosis, but frequent and varied examination failed to find any trace of the ray fungus. This form of tubercular disease of the liver was extremely rare. A few cases had been shown at the Society in which masses, probably tubercular, had been found; but none in which the disease was so extensive as in this case. By German writers a rare form of tubercular disease of the bile-ducts was described in which the entire organ becomes honeycombed with innumerable cavities filled with bile-stained softened matter. There seemed no evidence that in this particular case the disease had extended by means of the bile-ducts.—Dr. THOROWGOOD referred to a similar case exhibited last year, which was the only instance of such affection he had met with in the liver. It showed multiple small abscesses.—Dr. VOELCKER had seen two cases in children. In both there were cysts containing mucous material stained green, and both were the subjects of general tuberculosis. He had been unable to observe any transition stages between these cysts and the commoner solid tubercular masses.

Mr. H. BETHAM ROBINSON described a Duct Carcinoma of Breast which was removed, in June, 1889, from a married woman aged forty-six. She had had no trouble with the breasts until a little over three years before, when she noticed a hard lump in the left breast, just above and to the outer side of the nipple. This did not inconvenience her until three months before admission, when it rapidly grew and became painful. There were several nodules of a hard elastic growth in the upper and outer part. The skin was free and not altered; there was no eczema of nipple or areola. The growth was attached to the nipple, but the latter was not retracted. There was no enlargement of the axillary glands. There was slight discharge from the nipple. The right breast was healthy. On section, the tumour appeared like a cystic thyroid; it was composed of nodules, which seemed gelatinous, supported by a fibrous framework, the former bulging on section. The growth was lobulated and well defined, and pigmented from blood staining. There were cysts in it, containing a thick, greenish-brown fluid, and in some places blood-clot. Microscopically there was seen at the margin of the growth a cystic condition of the breast. The smaller ducts were dilated, but the veins did not appear to be much altered. The dilated ducts were lined with a columnar epithelium, the cells of which were proliferating, and in their interior the cells appeared spheroidal, and were undergoing mucoid degeneration. The ducts and acini were surrounded by a dense fibrous tissue. The larger spaces showed large papillary processes covered with several layers of epithelium passing into the interior and branching in all directions, so that the cyst space was almost completely filled up. Besides general dilatation of the bloodvessels, there was extravasation of blood into the connective tissue and into the cysts. The connective tissue showed no marked round-celled infiltration. From examining the sections there was evidence as to the starting point of the disease—namely, in a cystic condition which arose in connexion with involution in the gland. Microscopical appearances did not suggest any marked malignancy, and the history of most of the cases went to prove that such was the case. It was quite the exception to get enlargement of the axillary glands; local recurrence was not so rare, but secondary growths appeared to be rare. It was now one year since the operation, and the patient was quite well and free from any recurrence.—Mr. WILLIAMS said that the ordinary tubular cancer described by Billroth was diffused through the breast.—Mr. ROBINSON replied that the cancer referred to was acinous carcinoma, whereas the duct cancer was described by Billroth as cysto-adenoma.

The following card specimens were shown:—

Dr. LEDIARD: Coloured Photograph of Epithelioma of Scalp.

Mr. ROBINSON: (1) Dermoid Cyst; (2) Sebaceous Tumour of Scalp; (3) Epithelial Tumour of Soft Palate.

Dr. HEBB: Gangrene of Uterus.

Mr. J. H. TARGETT: Congenital Cyst of Testis.

Mr. SHATTOCK: (1) Polypi of Lymphatic Tissue from Child's Rectum; (2) Cystic Squamous-celled Carcinoma of Scalp arising in Sebaceous Cyst.

OPHTHALMOLOGICAL SOCIETY.

Corneal Tumour (? Fibroma) in a Man aged seventy-two.—Optic Nerve Atrophy in Smokers.—Artificial Maturation of Immature Senile Cataract by Trituration.

AN ordinary meeting of this Society was held on the 1st inst., Dr. J. Hughlings Jackson, President, in the chair.

Dr. BENSON (Dublin) read notes of a Tumour which was attached to the upper portion of the left Cornea of a Blind Glaucomatous Eye. It measured 5 millimetres in its longest diameter and was 2 millimetres in thickness. It was adherent to the surface of the cornea above the centre by 2 or 3 millimetres of its thin edge. The eye was said to have been blind for many years, but a few days before the patient came under observation he had knocked it against something, and since the blow had suffered intense pain. There was no evidence of recent injury to the eye. The growth was dissected off the cornea, and was found to consist of fibrous tissue with bloodvessels and cells, the whole being covered with epithelium, except at the margin, where it was separated from the cornea. It had a dull, lustreless, grey colour, and was lenticular in shape. The speaker mentioned the great rarity of corneal tumours of any kind, and expressed his inability to account for the existence of the growth in his case. A model, microscopic sections, and photographs were shown.

Mr. LAWFORD read a paper on Optic Nerve Atrophy in Smokers, based upon nine cases in which the symptoms in the early stage so closely resembled those of toxic amblyopia that the diagnosis made at first was that of tobacco blindness. All the patients were men and smokers, usually consuming a large quantity of tobacco. Treatment by abstinence from tobacco and the administration of nervine tonics led to no improvement; indeed, in most of the cases sight became progressively worse. The general features presented by these cases were gradual failure of vision with central negative scotomata for form and colour. The ophthalmoscopic signs were slight pallor of the temporal half of the discs, without visible alteration in the retinal vessels. The chief distinction between these cases and those of ordinary tobacco amblyopia was found in the peripheral limitation of fields of vision, which was almost always discovered if sought for; whereas in tobacco cases the boundaries of the fields were in most, if not in all, instances normal. None of the patients under the author's observation had sym-

ptoms of spinal disease, but one man, aged fifty-one, became insane some months after his sight failed. Mr. Lawford was of opinion that tobacco was certainly a factor in the causation of the optic nerve disease.—Mr. ADAMS FROST said that he was familiar with cases similar to those just described. He looked upon them as cases of tobacco neuritis, in which secondary atrophy supervened. He had long held the opinion that if vision deteriorated beyond a certain point in tobacco amblyopia, recovery did not take place, and in such instances he was accustomed to give an unfavourable prognosis.—Mr. EDGAR BROWNE (Liverpool) considered the cases cited were undoubtedly instances of tobacco poisoning. They occurred in persons of unstable nervous constitution, though this was not displayed otherwise than in the behaviour of the optic nerves; an instance of three brothers quoted as being affected in a similar way bore out this impression. Many cases showing no contraction of the field recovered; on the other hand, those in which the disease was severe and of long standing, and in which the fields were limited did not do so. He had recently under his own care two brothers—smokers—who suffered from amblyopia; in one the disease progressed and the field of vision became contracted, in the other improvement occurred. He was not aware of any instances of similar optic nerve disease in non-smokers.—Dr. HILL GRIFFITH said he was familar with cases similar to those described by Mr. Lawford. He did not regard them as cases of tobacco neuritis, for he held that disease of optic nerves from tobacco was always followed by recovery on discontinuing the drug. He thought some such cases might be explained by the coincidence of progressive atrophy of optic nerves and tobacco amblyopia, as in one case under his care in a patient with locomotor ataxy.—Mr. DOYNE (Oxford) said he had found that cases of tobacco amblyopia which were likely to improve always experienced great temporary benefit in vision from the inhalation of nitrite of amyl. He thought the use of strong tobacco interfered decidedly with the digestion and assimilation of food by its action on the alimentary tract. Many cases of tobacco amblyopia suffered from loss of appetite.—Dr. BRONNER (Bradford) alluded to the similarity in the effect of alcohol and tobacco on the optic nerves, and of the gaps which still existed in our knowledge concerning toxic amblyopia. He was accustomed to forbid the use of tobacco in all cases of optic nerve atrophy.—Mr. LAWFORD replied briefly to the remarks made upon his paper.

Mr. M'HARDY read a paper on the Artificial Maturation of Immature Senile Cataract by Trituration. He said that full five years' experience with the artificial ripening of immature senile cataracts, practised with increasing frequency and confidence, had convinced him of the truth of the following proposition: Complete ripening of immature senile cataracts may be safely and almost certainly secured in from eight days to eight weeks by preliminary iridectomy, with trituration of the lens through the cornea and pupil, done with judgment, experience, and care; the ultimate results (surgical and visual) of extraction operations in such cases are quite equal to the results of similar operations for senile cataracts which have been allowed to fully mature spontaneously; and, further, the removal of such artificially matured cataracts is entirely free from those risks, drawbacks, and often impaired ultimate results which follow from the removal of immature senile cataracts. He thought that a large debt was due to Förster for the initiation of this procedure. By memoranda from his first twenty-five and last 100 cases the author furnished details regarding his past experience with and present practice of the procedure, and emphasised thereby how its safety and success grew with the operator's experience.

The following cases and specimens were exhibited:—

Mr. TATHAM THOMPSON: (1) A Case of Cystic Detachment of the Retina; (2) Rupture of Choroid; (3) Depressed Fracture of Orbital Roof.

Mr. BRAILEY: Gouty Cyclitis.

Mr. HARTRIDGE: (1) Cyst in Anterior Chamber; (2) Changes in the Iris in Glaucoma.

Mr. W. J. COLLINS: Monocular Kerato-iritis.

Mr. LANG: Pemphigus of the Conjunctiva.

Mr. TREACHER COLLINS: Sections of Cornea from a case of Xerophthalmia.

Mr. HARTLEY: Granuloma of Iris.

EPIDEMIOLOGICAL SOCIETY.

The recent Epidemic of Influenza.

A MEETING of this Society was held on April 23rd, Sir Thomas Crawford, K.C.B., M.D., President, in the chair.

Dr. JACQUES BERTILLON, Chief of the Municipal Statistical Department of Paris, introduced by Dr. Mouat, gave in French an address on the recent Epidemic of Influenza in France. The following is a short *résumé* of a most important and interesting communication. He began by stating that any estimate of the mortality caused by the epidemic based on the number of deaths certified by the medical attendants and registered as due to influenza would be utterly incorrect and misleading. For while these figures would represent only the small number of instances in which the disease proved fatal, either from asthenia in uncomplicated cases or from complications and sequelæ supervening in the course of the disease itself, they would exclude the vastly greater number in which these secondary lesions followed at a later period, medical advice not having been sought in the primary attack, as well as the even larger number in which influenza was the means of causing or of accelerating a fatal termination of other and most diverse diseases of a more or less chronic character which would not have occurred otherwise, at any rate for months or perhaps for years. Thus, while the deaths in Paris certified as due to influenza were but 213 in all, the general mortality of the city during the months of December and January exceeded the average by no less than 5500, an excess which could not be accounted for by any climatic conditions, an unusual prevalence of other epidemics, or, in fact, by anything except the influence, direct or indirect, of this disease. The total mortality from all causes during the period in question was just double the average of previous years. There was no greater prevalence of infectious diseases, as small-pox, enteric fever, scarlatina, diphtheria, measles, and whooping-cough, but a larger proportion than usual of those persons suffering from these diseases succumbed to pulmonary complications. The enormous increase of the mortality from bronchitis, pneumonia, and pleurisy was clearly owing to the frequent occurrence of these conditions as sequelæ of previous attacks of influenza; but still more remarkable was the increased mortality from chronic diseases, as phthisis, organic lesions of the heart, diabetes, alcoholism, chronic diseases of the brain, kidneys, &c., in which the supervention of influenza, even of a mild or obscure type, hastened a fatal termination, and not infrequently suddenly. It was not dangerous to children unless already suffering from pulmonary affections, or diseases, as measles and whooping-cough, liable to pulmonary complications, and with these exceptions it was rarely fatal to persons under twenty years of age, but for every period beyond this the general mortality was doubled. It was only half as fatal to women as to men, probably from their being less exposed to cold and wet during and after an attack. No class of society, however, was exempt, the excessive mortality being equally marked in the wealthier and the poorer quarters of the city; but the most surprising fact, which Dr. Bertillon did not attempt to explain, was that the number of suicides was increased by about 40 per cent.! Besides the figures on the blackboard referring to Paris, Dr. Bertillon exhibited some ingenious charts of several countries of Europe, showing, by means of lines and circles, the populations of the principal towns, the total excess of mortality in each during the months of December and January, and the weeks in which the deaths were less or more than 50 and 100 per cent. above the average.

Dr. GEORGE RICE read a report of an Outbreak of Influenza in the Union Schools on Banstead Downs, in which from 30 to 50 per cent. of the children in the several blocks or departments, as well as from one- to three-fourths of the adults, were attacked, the latter (with the exception of the initial and imported case) subsequently to the larger proportion of the children. The history of this outbreak and its progress through the establishments conclusively proved its contagious nature.

HUNTERIAN SOCIETY.

Puerperal Fever.

A MEETING of this Society was held on March 26th, Dr. Stephen Mackenzie, President, in the chair.

Dr. HORROCKS read a paper entitled "Observations on Puerperal Fever," in which he drew attention to the varieties of the disease and the means of coping with each. In true puerperal fever there was nothing to clear away from the uterus, and the course of the disease was that it manifested itself on the third day, and the patient died on the tenth day—that is, the fever lasted one week. He detailed cases illustrative of his statements, and expressed his opinion that an attendant on such cases ought certainly to attend no other midwifery case so long as he is in actual attendance on patients suffering from true puerperal fever. Every practitioner ought to be very thorough in his application of antiseptic precautions in obstetric practice. — Dr. HERMAN said there were as many diseases included under puerperal fever as there were diseases affecting wounds, and those affecting the canal lower down were the commonest. True puerperal fever might be one of various diseases, such as diphtheritic condition of the wounds, septicæmia, or pyæmia. In the General Lying-in Hospital there had been only one fatal case of septicæmia in many years since the sublimate got fairly into use, and only 20 per cent. of all cases had any febrile symptoms at all; salufer did not answer the purpose. As to scarlatina, there was evidence that when outbreaks of scarlatina occurred in lying-in hospitals where antiseptics were used no septicæmia was produced; also the death-rate from puerperal fever is not increased during epidemics of scarlatina.

Bronchocele — Amenorrhœa from Shock. — Stricture of Œsophagus. — Treatment of Erysipelas.

At a meeting on April 26th, Dr. ARTHUR DAVIES showed three cases of Bronchocele, two sisters and a niece, all born at one village in Devonshire; also a fourth patient, unrelated, but who lived in the same village, and had lived for three months in the same house. The tumour in the first case contained some fibrous growth, the others seemed purely glandular.—Mr. HOVELL said that the internal administration of iodine, beginning with five minims of the tincture, with hydrochloric acid and glycerine, thrice daily, answered well in simple glandular cases. When the gland was fibrous, injection of tincture of iodine was the best treatment, and in a large experience he had met with no serious results, excluding of course cases of cystic goitre.—Dr. HINGSTON FOX remarked on the connexion between disorders of the thyroid gland and menstruation, referring to a case of inflammatory enlargement shown before this Society, and to cases of women whose thyroids enlarge at the catamenial epochs.

Dr. HERMAN read a paper on Amenorrhœa from Mental Shock and with Mental Depression. He narrated several cases in which shock was supposed to have caused the cessation, but in which, he believed, the real condition was one of mental depression, akin to melancholia, and of defective nutrition, the amenorrhœa being beneficial rather than otherwise. The uterus showed either some atrophy or no change. In these cases the Weir Mitchell treatment, massage, and galvanism generally resulted in re-establishment of the function. Those who could obtain change of air, with exercise, food, and tonics, attained a like result. He saw no advantage in local treatment. He would ask, finally, whether there were any cases due strictly to mental shock unaccompanied by melancholic symptoms? Amenorrhœa was the rule in melancholia, and the cases he had described occupied, as it were, a half-way house to this disease.

Mr. RIVINGTON showed a case of Stricture of Œsophagus. A labourer, aged sixty-one, had symptoms of stricture without apparent cause; a bougie passed fourteen inches. The disease was diagnosed as malignant. Bougies were persevered with, and on the twelfth day he passed the smallest tube, increasing until in two weeks more he passed No. 12 bougie with a bulbous end; he could now swallow bread-and-butter. He is doing his work, and gaining weight; no signs of syphilis. Mr. Rivington's second case was of an emaciated woman aged fifty-five. During a month bougies were tried, once only passed into the stomach. She could hardly swallow anything; was constantly vomiting. On March 1st he performed gastrostomy, finding the stomach much contracted, like small intestine, and having a mass of cancer at the cardiac orifice. The stomach was opened two days after, and a small glass tube left in, through which peptonised fluids are injected. A stone had been lost in weight during three weeks before the operation; five pounds and a half only in the seven weeks since.

Mr. BIDWELL read a paper on the Treatment of Erysipelas by Hypodermic Injection, a method introduced by Hüter ten years ago, but never employed in this country. Carbolic acid solution (5 per cent.) was injected in multiple punctures, half an inch outside the spreading margin, in four severe cases in children. All improved under this treatment, and he claimed that whilst the natural tendency of the disease is towards cure, the hypodermic treatment shortens the duration, and thus lessens the danger of infection.

MIDLAND MEDICAL SOCIETY.

A MEETING of this Society was held on April 9th, Mr. Harmar in the chair.

Necrosis of Clavicle.—Mr. HASLAM showed a Sequestrum, two inches in length, and involving almost the entire circumference of the clavicle, that he had removed from a girl aged thirteen. Six months ago a swelling had formed, without any apparent cause, over the bone, and this had rapidly broken down and discharged pus.

Cholecystotomy.—Mr. C. MARTIN read a paper on this subject, and showed specimens of gall-stones that had been removed by Mr. Lawson Tait.

Hemiplegia with Optic Neuritis.—Dr. SUCKLING showed a boy aged six suffering from Amnesia and Right Hemiplegia, who also suffered from well-marked Optic Neuritis. On Feb. 10th last he had a fall, having been previously quite well. From Feb. 13th to Feb. 19th he had four convulsions. He was admitted into the infirmary on the 19th in a semi-conscious state with retraction of the head. He appeared to have pain in the back of the head, as he occasionally put his hand up to it. There was paresis of the right arm and right side of the face. He became conscious in a day or two, when he was found to be aphasic, answering "Yes" to all questions. There was still some tendency to retraction of the head. There was no vomiting and no headache, but well-marked optic neuritis existed, being more intense on the left side. Since his admission he has been taught several words. He seems to understand everything that is said to him. Dr. Suckling mentioned that he had seen many cases of hemiplegia in children in whom there was also optic neuritis. In two cases the diagnosis of tumour was certain, and yet the hemiplegia came on suddenly. Optic neuritis was, he thought, rare in cerebral embolism, thrombosis, and hæmorrhage, but did occur in meningeal hæmorrhage, and the diagnosis rested between this and latent cerebral tumour. The epileptiform attacks, and the occurrence of the symptoms after a fall, the boy having previously been quite well, pointed in this case to meningeal hæmorrhage.

Syphilis of Lung.—Dr. FOXWELL showed a left lung the upper lobe of which had undergone a uniform fibrosis. The vessels and bronchi were much thickened. At the apex were several irregular, pus-containing cavities of quite recent formation. The pleura was much affected, perhaps primarily so, in places being a third of an inch thick, and almost cartilaginous in texture. Its two layers were adherent except where separated by pus. The lower lobe was collapsed, but otherwise normal. The patient from whom the specimen was taken was admitted to the Queen's Hospital under the care of Mr. Marsh and Dr. Foxwell with a tumour the size of a large orange centring over the second left space. This was incised and the apex of the lung drained through it; but fresh openings arose lower down, with much erosion of the corresponding ribs. The right chest was unaffected. The patient died of exhaustion. The man gave only a nine months' history of cough and expectoration, but had been getting weak for six months prior to this. No bacilli were found, but only one examination was made. Though no history of syphilis was obtained, and though syphilis very rarely produces a diffused mischief such as this was, yet Dr. Foxwell believed syphilis was most probably the cause of the condition.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Section of Anatomy and Physiology was held on March 14th.

Exhibits.—Professor BIRMINGHAM exhibited (1) a Right Lung, the upper and inner parts of which, including the whole of the apex, were marked off by a deep fissure as a supernumerary lobe; (2) the Two Halves of the Nasal Fossæ—one with the mucous membrane removed, the other with the membrane intact,—in which there was almost complete absence of the ethmo- and maxillo-turbinal bones.

The Lantern as an Aid to Anatomical Demonstrations.—Professor BIRMINGHAM gave a demonstration of the application of the Magic Lantern to the illustration of Anatomical Lectures. He pointed out that the lantern might be used during the day in a theatre with a head light, if the screen were provided with a projecting canopy, so that a penumbra might be produced on its surface. He explained the method of making slides either by photography or by the hand. They were drawn with a fine pen in Indian ink, either upon prepared glass, prepared sheets of mica, or upon thin sheets of gelatine, which were afterwards placed between two sheets of glass. He had been using this means of illustration (in addition to blackboard diagrams in coloured chalks) daily for two years, and he had found it thoroughly satisfactory. He confidently advocated the systematic use of the lantern for anatomical illustration. He then exhibited a large number of diagrams illustrating anatomical subjects.—The PRESIDENT said that he had made experiments with the lantern in his own theatre, but his results were not as good as Professor Birmingham's when the theatre was not completely darkened. However, he did not think that the lantern ought to be allowed to replace diagrams made with coloured chalks in the presence of the students.

Collective Investigation.—1. Dr. W. HENRY THOMPSON reported on the Formation of the Portal Vein. Out of 53 cases the inferior mesenteric ended in the splenic in 30, in the superior mesenteric in 20, and in the angle between both in 3. Out of 44 cases the coronary ended in the portal in 26 cases, in the splenic in 18. Four chief "types" of portal were found in the 44 subjects—(1) found in 16, the inferior mesenteric joined splenic, coronary entered portal; (2) found in 11, the inferior mesenteric joined the superior, coronary entered splenic; (3) found in 7, both inferior mesenteric and coronary entered splenic, and (4) found in 7, neither inferior mesenteric nor coronary joined splenic, former joined superior mesenteric, latter joined portal. The first of these is considered normal. Out of 46 cases the portal vein was formed at the level of second lumbar vertebra in 32.—2. Messrs. A. C. O'SULLIVAN and O. L. ROBINSON submitted their report on the Arrangement of the Renal Arteries. Forty-three subjects had been examined. In 18 cases an accessory artery entered at the upper or lower border; accessory arteries arose from aorta or renals, except in one case in which they took origin from the common iliac. In 46 cases all the branches passed between vein and ureter, in 6 they enclosed vein and ureter, in 11 enclosed vein only, in 6 ureter only, and in other 6 all the arteries passed in front of the vein.—3. Mr. J. J. LONG reported on the Relation of the Internal Maxillary Artery to the External Pterygoid Muscle. Eighty-eight arteries examined. The artery ran superficial to the muscle in 50 per cent. of the cases, and then entered between its two heads. In 42 cases the artery lay deeper than the external pterygoid; in 19 of these cases the inferior dental, and in 7 cases the lingual nerve passed down superficial to the artery.—4. Mr. C. E. STOKES read a report on the Tuberculum Laterale of the Astragalus. Seventy-two cases examined, two examples of os trigonum found, in each case connected with the astragalus by a synovial joint which communicated with the posterior astragalo-calcaneal, and in each case the os trigonum gave partial attachment to the posterior fasciculus of the external lateral ligament of the ankle-joint.—Professor CUNNINGHAM reminded the section that this was the second report of the collective investigation read before the Academy.—Professor BIRMINGHAM said that the gentlemen who carried out the investigation deserved the thanks of the section for the interesting reports which they had just read. He pointed out that Dr. Thompson's report on the termination of the inferior mesenteric vein differed from the results of Treves, who found that the vein terminated in the splenic in only 18 per cent. of his hundred cases. Treves considered this ending a sign of higher development. Perhaps Dr. Thompson's results pointed to the conclusion that the Irish whom he examined were more highly developed than those persons examined by Treves.

The Parieto-occipital and Calcarine Fissures of the Brain; their Development and Relation to the Calcar Avis.—Professor CUNNINGHAM read a communication on the development of the Parieto-occipital and Calcarine Fissures and their relation to the Calcar Avis. He referred to the conflicting views held regarding the development of these fissures, the difficulty in connexion with their study being due to the fact that their origin was synchronous with that of the transitory fissures of the brain, and they lie in series with them. For those early fissures corresponding in position to the parieto-occipital and calcarine, he proposed the name of "precursors" of these fissures. He traced the connexion between the precursors and the permanent fissures, and showed how the history of either of the two fissures might be made out, not only in the brain of the seven months' fœtus, but even in most cases in the adult brain.

OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY OF GLASGOW.

THIS Society met on March 26th, the President, Dr. Murdoch Cameron, in the chair.

Dr. KIRK (Partick) read a paper on Two Cases of severe Vomiting in the later months of Pregnancy associated with Hemi-albumosuria and Diaceturia, in which he stated that these conditions of the urine had not been previously observed in pregnancy. In the first case the vomiting was associated with marked pigmentation of the skin, and in the second, in which it was of the convulsive type, with slight jaundice. The propeptone, or hemi-albumose, was detected in the ordinary way—viz., by adding carefully a mineral acid and boiling. This treatment of the urine in both cases gave a flocculent precipitate, which disappeared on boiling, but reappeared as the urine cooled. In the second case the urates were also precipitated by the test, but these were readily distinguished by the low temperature at which they disappeared on heating. The urine in this case gave, further, a deep purple-red colour with ferric chloride, indicating the presence of ethyl-diacetic acid. Not only so, but the same reaction was also obtained at first in the distillate after acidulating with hydrochloric acid, this apparently being the first time this has been observed—a fact which Dr. Kirk was inclined to attribute to the large quantity of the acid present in this case. Both patients were treated by chloral hydrate, and subsequently by sodium salicylate (it should be stated that the diaceturia was observed before the latter, or any drug, was administered). In both the abnormal state of the urine ceased within eight days, and they were generally much improved. Dr. Kirk further drew attention to the great viscidity and frothing power developed in the urine by ferric chloride, and to the light which this shed on the styptic power of this substance. He next referred to cases of jaundice from obstruction and functional disturbance, in which he had also observed the occurrence of hemi-albumosuria and diaceturia (singly or both together), and said that although these states of the urine had been often observed in the same class of cases, he was not aware of their coexistence in any single case having been previously pointed out—an occurrence which, nevertheless, he believed must be not uncommon.

A GENEROUS DONOR.—At the quarterly meeting of governors of the Sheffield Public Hospital, which took place on Wednesday, the 30th ult., the minutes submitted contained record of a generous gift of £6150 towards the cost of the new buildings, with an intimation that the contribution would be increased if necessary.

THE SURGICAL AID SOCIETY.—During the past year 9000 patients have been assisted by this society, and nearly 14,000 have been supplied with surgical appliances of such value that they are now able to support themselves instead of being dependent on public charity. These facts form a sufficient guarantee for any charitably disposed persons to forward their donations unhesitatingly to the charge of this society, by whom they will be laid out and used to the best advantage.

Reviews and Notices of Books.

The Guide for Irish Medical Practitioners; containing valuable Information for Medical Practitioners, and especially for those holding Public Appointments, as Poor-law, Infirmary, Prison, Lunacy, &c. By Prof. R. J. KINKEAD, M.D.Dub., J.P., Lecturer on Medical Jurisprudence, Queen's College, Galway, &c.; with a Preface by A. H. JACOB, M.D., &c. Published by and with the authority of the Irish Medical Association. Dublin: John Falconer. 1889.

AMID all the ills and misfortunes of Ireland, it is satisfactory to know, as we learn by a quotation from Dr. Mapother at page 67 of this book, that the sick poor in Ireland are better cared for than in any other country. There could only be one higher compliment to a community—that the poor were so considered that they did not become either so sick or so poor as to need such elaborate provision for their treatment at the cost of the State as obtains in the Dispensary and County Infirmary system of Ireland. This provision, however, meantime exists, and is beneficent in its operation. The nature and working of it are matters of great interest to the profession, not only in Ireland, but elsewhere, and they may be fully studied in this volume. The volume has been composed and issued under the auspices of the Irish Medical Association, which has been constantly referred to in the difficulties which arise in connexion with practice, especially Poor-law practice, in Ireland. Not the least valuable part of the volume is the Preface by the Secretary of the Irish Medical Association, Dr. Jacob, from which we learn that wellnigh one million of persons, or one-fifth of the whole population, come in some way or other under the treatment or notice of the State-appointed medical officers. These officers amount to about a half of the working members of the profession, without including the resident physicians of the district asylums.

The dispensary system, under which the great bulk of the Irish poor—and some, we fear, who are not poor—are attended, is fully described in this volume. So also are the Public Health Act (Ireland), 1878; the Labourers' (Ireland) Act, empowering sanitary authorities to provide housing for agricultural labourers, and providing such labourers with half an acre of land; the Dispensary Houses (Ireland) Act, for providing dispensary and dwelling houses for medical officers of dispensary districts; the Registration Acts; the Superannuation Acts; the Lunacy Acts; the Habitual Drunkards Act; the Prisons Act; the County Infirmaries Acts; the Factory and Workshop Act; the Act regulating the inspection of seamen and merchant ships; besides Acts regulating coroners, medical witnesses, pharmacists, &c., and general chapters on malpraxis, medical evidence, food and dietaries, &c.

The interest of the Irish dispensary system of Ireland alone would make us thankful for this volume, with all the information it contains; but as a general compendium of information affecting the profession in Ireland it is a most valuable addition to medical literature. Those who are concerned in measures for improving medical attendance on the poorer sections of the community in any country will find a good deal in this volume to consider, though not necessarily to imitate too closely. As we hinted at the beginning, we should prefer a state of society in which the poor were not so poor as to need such an elaborate State provision. Be this as it may, the system is one that gives large employment, if somewhat inadequate remuneration, to the profession, and seems most acceptable and valuable to the poor. And it is difficult to believe that for some time to come Ireland will be independent of it.

Children of the State. By FLORENCE DAVENPORT-HILL. Edited by FANNY FOWKE. Second Edition, revised and enlarged. London and New York: Macmillan and Co. 1889.

AMONG the many problems which from time to time have taxed the skill of social reformers there is none which calls for more careful treatment than that which concerns the welfare of orphan, destitute, and criminal children. In addition to the interest natural to its subject, however, the volume before us possesses all the attraction which is conferred by full and carefully sifted information, by method in arrangement, and a lucid style. It narrates in order the history of child relief in this and other countries, and if a bias in favour of certain methods is apparent, this is evidently no more than a legitimate consequence of the data available for comparison.

Our time-honoured system which till recently made the workhouse for pauper children at once home and school is unsparingly condemned. Within its walls the degrading influence of pauper associations is inevitable, education and, especially, domestic training are perfunctory and imperfect, and health suffers from overcrowding. It was in order to amend these evils that an Act was passed in 1844 and amended in 1848, empowering unions to form separate schools for workhouse children. The results attained under the new arrangement, however, were still disappointing, and the reasons for this were not far to seek. The children were still massed in large numbers, individual supervision was out of the question, natural home life impossible, and immorality and disease, especially contagious ophthalmia, flourished in spite of all measures taken to check them. Greater freedom, greater personal care, and the removal of pauper-like surroundings were needed to re-establish in these children a healthy tone, and to restore that sturdy individuality, the lack of which affords a clue to many other failures. The improvement, moral and physical, which followed the formation of cottage homes, each containing some twenty to forty children, was only to be expected. A further advance initiated by voluntary effort was marked by the establishment of certified homes entirely separate from the workhouse. In these the cost per child was less than half that incurred in the separate schools, and there was a far truer, though not yet a natural, home life. Emigration and apprenticeship carried the salutary work of dispersion a step further. Each of these latter affords on a limited scale a practical illustration of the final stage in decentralisation, that which clearly commends itself above all others to the authoresses of this carefully written work—the boarding-out system. The development of this excellent method from its beginnings at a remote period in France, where, as in Ireland, it is truly indigenous, is described in detail. The account here given of its gradual adoption by every civilised country—its healthy action on the bodies, minds, and morals of the children, its marked success as a depauperising force, and its distinct economic advantages, notwithstanding occasional failures, over the workhouse arrangement—is most interesting and instructive.

At the same time a fair consideration is accorded to other methods, and indeed for certain children specially disqualified by physical weakness or markedly immoral tendency for boarding out, the certified home is preferred. Valuable experience may also be gleaned from a chapter on out-door relief of pauper children. The interference of the State with parental rights, where these have been abused, is another subject which has not to be overlooked, and the remarks on the "Massachusetts Plan" of exerting this authority (already operative both in the United States and Australia) deserves careful perusal.

The whole book is a thoughtful and readable digest of

parochial experience in the management of dependent children, and will rank as a useful, and on the whole a very impartial, manual for all who may be occupied in this department of public work.

OUR LIBRARY TABLE.

The Treatment of Pleurisy and Empyema. By BYROM BRAMWELL, M.D., F.R.C.P. Edin. Edinburgh and London: Young J. Pentland. 1889.—The subject discussed in this interesting monograph is one that is well worn, but always of value. Those who are acquainted with Dr. Bramwell's previous writings will be prepared to find the matter treated in a methodical and systematic style, and there is little room for criticism either on the side of the description of the signs of pleurisy or on the question of the most appropriate treatment to be followed. It seems to us, however, that Dr. Bramwell rather too much restricts the resort to paracentesis in pleural effusions, although in his directions for its performance we can thoroughly agree. He has availed himself of the teachings of many authorities, and his instructions are as minutely detailed as anyone could desire. Regarding empyema, more ample consideration might perhaps have been given to the question of rib resection. The most troublesome and difficult cases are those of adults where the empyema has been of long standing, so that the lung is quite unable to re-expand. To what extent the surgeon is justified in removing portions of several ribs, and what are the prospects of attaining a cure by such a proceeding, are points which require to be determined. In simpler uncomplicated cases, and especially in children, the treatment of empyema by drainage is fairly satisfactory in its results, and less is required in the way of resection of ribs. Dr. Bramwell quotes with approval the plan recently advocated by Dr. Robertson of "double drainage and irrigation." The plan certainly has its advantages, but, as Dr. Bramwell subsequently points out, the need for irrigation is not always apparent. It must never be forgotten that fatalities have occurred during the washing out of the pleura or in consequence of it; so that, whenever free drainage can be obtained, there is no necessity for, and a decided advantage in withholding, injections, which at one time were regarded as absolutely essential to treatment.

Dental Chemistry and Metallurgy. By CLIFFORD MITCHELL, M.D. Chicago: Keener.—The scientific subjects embraced in dental surgery range over a considerable area, and this manual for dental students and practitioners contains a great deal of useful information well brought up to date. All compiled works of this sort can convey but a feeble idea of general principles, and the attempt made in this direction in this book is by no means satisfactory, physics, electricity, chemistry, and practical laboratory work being quite of the "elementary School Board series" type. Of the special dental notes may be mentioned the mixing of a small quantity of alum and gelatine with plaster-of-Paris before the addition of water, which makes the resulting mass harder and less porous and imparts a smooth surface, which can be washed with water if necessary. The permanganate test for hydrochlorate of cocaine is described: this consists in taking one grain and a half of cocaine muriate dissolved in eighty minims of distilled water, to which is added one minim of dilute sulphuric acid, if then a drop of a 1 per cent. solution of potassium permanganate in water be added speedy discolouration will show the presence of organic impurity; and the very practical note is given that a little tannic acid added to the water will remove the smell of iodoform from the fingers. Two defects of this work are the meagreness of the index and the extraordinary variations in the character of the type, even on one page, which render reading most trying to the eyes.

Principles of Universal Physiology: a Reform in the Theories of Physics, Chemistry, Biology, and Cosmology. By CAMILO CALLEJA, M.D. London: Kegan Paul and Co. 1889. Pp. 146.—This little work, the author informs us in the preface, is a compendium issued in advance of a complete work called "Universal Physiology," which is intended to reform the whole theory of natural science. This physiological theory affirms that the first effects in the world are those of vitality, from which all other material changes are uniformly derived by simple propagation of movement with conservation of energy; and it asserts that the continuity or persistency of cosmos in its uniform actual state depends on the supreme power which directly acts in organism alone. The views of the author are so much compressed, and are given in such metaphysical language, that the reasoning is difficult to follow. He admits the existence of atoms, and of certain fluid or meta-fluid, to which he applies the name of "progene," and maintains that all bodies are composed of progene and corpuscles; the progene is always in oscillation, but the corpuscles move and are translated by progene only when a change of temperature or state occurs in bodies. Sound he thinks is propagated, not by undulations of the air but by progenic oscillation, and he compares and contrasts sound with light. The work will be read with interest by those who are fond of metaphysical discussions.

The Quarterly Journal of Microscopical Science. Edited by Professors RAY LANKESTER, KLEIN, and SEDGWICK. Vol. XXXI. New Series. Part I. Pp. 98. Pl. I.–XIII. J. & A. Churchill. April, 1890.—The following articles are contained in this part:—1. On Phymosoma Varians, by Arthur E. Shipley, M.A., illustrated by four plates. 2. The Spinning Apparatus of Geometric Spiders, by Cecil Warburton, B.A. This paper is interesting, gives support to some of Apstein's conclusions, and shows that a spider's line is ordinarily composed of two or four distinct threads. 3. On the Structure and Functions of the Cerata or Dorsal Papillæ in some Nudibranchiate Mollusca, by W. A. Herdman, D.Sc. 4. Further Observations on the Histology of Striped Muscle, by C. F. Marshall, M.B. 5. On Chætobranchus, a new genus of Oligochætous Chætopoda, by A. G. Bourne, D.Sc. 6. The Presence of Ranvier's Constrictions in the Spinal Cord of Vertebrates, by Dr. W. Townsend Porter. Lastly, a description of Professor Bütschli's Experimental Imitation of Protoplasmic Movement.

The Flowering Plant. First Principles of Botany. By J. R. AINSWORTH DAVIS, B.A. London: Charles Griffin and Co.—Mr. Davis is already favourably known as the author of "An Introduction to Biology," and his more recent work will do much to add to his reputation as a writer of students' text-books. It supplies a want felt by teachers and others interested in natural science, and will be useful both to inexperienced and more advanced students. Mr. Davis' method is peculiarly suitable for beginners, teaching them rather by careful observation of nature than by the mere acquisition of technical terms, and always impressing upon students the immense importance of practical work in the study of botany. After an introductory chapter on the Relation of Plants and Animals, the Morphology and Physiology of Flowering Plants are dealt with. Then follows an appendix containing an excellent scheme for the examination and classification of plants, the volume concluding with a list of questions chiefly from the South Kensington examination papers, which should be useful to those about to matriculate.

Shelley's Complete Press Directory. Fourth Edition.—This is valuable as "a full and impartial guide to the press of the United Kingdom." It contains a complete list of

the daily newspapers, periodicals, magazines, and reviews published in London, the English counties, the Welsh counties, and the provinces, alphabetically arranged and subdivided under the headings of England, Wales, Scotland, Ireland, and the British islands. It further contains a summary of newspaper law cases for the year 1889, recording important decisions affecting copyright and the law of libel. In addition to the exercise of scrupulous care in obtaining and recording the necessary information respecting all publications, the publishers have massed together in a concise and handy form a large amount of useful commercial information which entitles the Directory to be regarded as an almost indispensable work of general reference.

Analytical Records.

PLANCKAERT'S CHAMPAGNE.

(G. & V. PLANCKAERT, A AVIZE, MARNE; M. J. REILLY, 6, ADAM-STREET, ADELPHI.)

A good sound champagne, neither very dry nor very sweet, pleasant in bouquet, and moderate in price. Analysis showed in parts by weight, alcohol 8·29, equal to 18·04 per cent. proof spirit; non-volatile matter, including sugar, 5·34, and ash 0·105.

BEEF AND IRON WINE.

(BURROUGHS, WELLCOME, AND CO., LONDON.)

Analysis shows the presence of iron, quinine, citric acid, and meat extract, with wine as a medium. It is an excellent and valuable preparation, most suitable for use in anæmia and similar disorders. It is perfectly clear, faintly acid in reaction, and in flavour leaves nothing to be desired.

CASWELL, MASSEY, AND CO.'S QUININE CHOCOLATES.

(CURTIS AND CO., 48, BAKER-STREET, LONDON.)

These are small tablets, or lozenges, which in taste can hardly be distinguished from chocolate, but in which quinine is readily found by analysis. They are described quite correctly as affording "an elegant method for the administration of quinine to young children." In fact, although the quinine is unmistakably present, its bitter taste is scarcely perceived.

BYNOL, PERFECTED MALT AND OIL.

(ALLEN AND HANBURYS, PLOUGH-COURT, LONDON.)

This is one of the mixtures, compounds, or solutions (for they partake of all three characters) of cod-liver oil and malt extract, which are now so deservedly popular. In this preparation globules of oil cannot be distinguished, and yet the oil readily separates on the addition of water. The malt extract is well prepared and the diastase is active, as is readily shown by the ease with which starch paste is converted. After a short digestion iodine gives the red colour of erythro-dextrin instead of the well-known blue of starch. The flavour is very satisfactory, and we believe that "bynol" will be taken and digested by many who cannot assimilate cod-liver oil.

PEPSALIA—DIGESTIVE TABLE SALT.

(G. AND G. STERN, 62, GRAY'S-INN-ROAD, LONDON.)

We have examined this preparation with some care, and are convinced that it is what it professes to be—namely, a mixture of table salt with some digestive agent. The deposit obtained from "pepsalia" by the addition of water acted readily on coagulated albumen, showing the activity of the pepsin. It is, of course, well known that any considerable quantity of common salt arrests the action of pepsin; but if the mixture is used, as this is intended to be, as a condiment, the salt will probably be sufficiently diluted in the stomach to allow to the digestive ferment its proper action. Further evidence in regard to this point is desirable, but there seems reason to hope that in this preparation we have a convenient means of aiding digestion.

VINOLIA SOAP.

(BLONDEAU ET CIE., RYLAND-ROAD, KENTISH-TOWN, LONDON.)

Our analysis confirms the account of this soap given by its makers. We found no free alkali, combined soda equal to 9·5 per cent. of Na_2O, and a distinct excess of free fat. The odour is delicate, and the article evidently of excellent quality.

LODGES' No. 2 DIETETIC TEA.

(LODGES, BROAD-STREET, BIRMINGHAM.)

This tea gave ash 6·58, and alkalinity 1·56. It is therefore evidently genuine and unadulterated with spent leaves. We do not understand why it is specially described as dietetic, as it contains tannin in abundance, and tannin is the usual difficulty in regard to digestion.

New Invention.

NEW WIRE SUTURE REMOVER.

THE removal of wire sutures requires, as a rule, the use of three instruments: a tenaculum, to raise the loop of wire from its bed; a dissecting or other forceps, to hold and draw out the wire; and a scissors, to cut the loop. I have endeavoured to combine these three instruments in one, and the accompanying illustration will, I hope, make the description plainer. The tenaculum point of the blade being gently slipped under the loop of the suture, will raise it from its bed, even if partially buried in the tissues,

and the action of cutting the wire holds it as well, and there will be no difficulty in its removal. I have found this instrument most useful for removing the silver wire sutures after the operation of hystero-trachelorraphy, and also from the perineum. The advantage of having three separate instruments combined will, I trust, commend it more especially to gynæcologists. The makers are Messrs. Arnold and Sons, West Smithfield, London.

ALEXANDER DUKE, F.K.Q.C.P.I. &c.,
Gynæcologist to Steevens's Hospital, Ex-Assistant-Master to Rotunda Hospital.
Dublin.

CALAMITOUS FIRE AT A LUNATIC ASYLUM.—A dreadful fire, resulting in the loss of over forty-six lives, broke out in a lunatic asylum at Longue Pointe, twelve miles east of Montreal, in which 1300 lunatics were confined. The fire is supposed to be the work of an incendiary lunatic, and is said to have spread throughout the building with lightning rapidity, and the fire appliances at the disposal of those on the premises were totally inadequate. A large number of firemen and police arrived from Montreal, but the supply of water was exhausted in five minutes, and it soon became evident that the building was doomed. Some thrilling scenes were enacted between the firemen and the lunatics whom they were endeavouring to save. All the books and records belonging to the institution are said to have perished in the flames, so that only an approximate estimate of the total damage and loss of life can be given.

THE LANCET.

LONDON: SATURDAY, MAY 10, 1890.

THE Lunacy Act, 1890, came into operation on the 1st inst., and with a view to bringing the alterations in the Law of Lunacy more directly to the notice of superintendents and managers of asylums the Commissioners in Lunacy have issued a circular in which attention is called to the changes introduced in this new Act. On and after the 1st inst. a private patient cannot, as a general rule, be received (except by transfer) into an institution for lunatics without a "reception order" being made by a "judicial authority." The exceptions are two in number: first, in a case of urgency, when a patient may be received on an "urgency order"; and secondly, in the case of a lunatic so found by inquisition.

The "reception order" is obtained upon petition presented, if possible, by the husband or wife or a relative of the patient with two medical certificates, one of which must, whenever practicable, be given by the usual medical attendant of the patient. An "urgency order" should, when possible, be made by the husband or wife or a relative of the patient. If not, the connexion of the person signing it with the patient must be stated. It must be supported by *one* medical certificate, which may be signed before or after the order, and the certifying medical practitioner must have examined the patient not more than two clear days before his reception. An urgency order remains in force for seven days from its date, or, if a petition for a reception order is pending, until the petition is finally disposed of. The reception order for admission into an asylum of a lunatic who is "not a pauper, and is not wandering at large," but who "is not under proper care and control, or is cruelly treated or neglected," must in future be made by a justice who is a "judicial authority."

The Commissioners state that the principal changes made with regard to the reception orders for pauper patients, to be termed in future "summary reception orders," are—the requirement that the order shall contain a statement that the justice making it is satisfied that the patient is a pauper in receipt of relief, or is in such circumstances as to require relief for his proper care and maintenance; and that an order can no longer be made by an officiating clergyman and relieving officer or overseer. We need not here deal with other details—mostly of after-treatment in asylums—referred to by the Commissioners in their circular; for, after all, the process of certification and admission of patients is, socially speaking, the most vitally important question connected with the subject of lunacy and the administration of the lunacy law. The alterations in this process to which we have thought it advisable to call attention in connexion with the new Lunacy Act have been introduced with the view of satisfying the public that the interests both of the patient and of the certifying medical men are duly considered in the provisions of that Act, and that the lives and property of members of the community are not unwarrantably endangered by the presence of lunatics in their midst. We hope that when put to the test of practice these provisions will be found to meet the various requirements and to safeguard interests that are really identical, although, from the circumstances of the case, they may not always appear to run on parallel lines. Notwithstanding his own protestations to the contrary, there can, for instance, be no question that it is for the universal good that a dangerous lunatic should not be permitted to go at large.

In a paper on "Some Practical Notes of the Symptoms, Treatment, and Medico-legal Aspects of Insanity," which was read in March last before the Chester Medical Society by Dr. BRUSHFIELD, late Superintendent of Brookwood Asylum, some very pertinent remarks are made on the new modifications in the Lunacy law. He says: "For the first time in the history of lunacy legislation medical men who have signed certificates of insanity are protected from those vexatious law proceedings which have entailed so much anxiety, trouble, and expense to so many of them during the last few years, the only proviso (a very proper one) being that the medical man 'has acted in good faith and with reasonable care.' Should any legal proceedings be attempted, a summary application may be made to a judge, who, if satisfied that the medical certifier has so acted 'in good faith and with reasonable care,' may not only stay proceedings, but order costs. Already two such attempts have been quashed by the judges, although one of the cases (FREEMAN *v.* STAPLES) presented some unusual features not contemplated by the Act." Dr. BRUSHFIELD goes on to say that the section of the Act relating to this subject is clear and comprehensive; and medical men should be thankful to know that it is retrospective in its operation.

The Commissioners in Lunacy have also issued certain rules which they have made with the approval of the Lord Chancellor. These rules refer to the asylum treatment of lunatics and the records and documents connected therewith. In addition to this, they have sent out a memorandum containing a "Regulation as to instruments and appliances for the mechanical bodily restraint of lunatics." They say: "it is with great reluctance that they approach the performance of the duty imposed on them by the Legislature of determining the instruments and appliances of restraint, and their discharge of the duty must not be construed as implying any greater countenance by them of this mode of treatment than they have hitherto given to it. They recognise, however, that cases will occur in which it is necessary, for the safety of the patient or of others, or is beneficial to the patient, that mechanical restraint should be applied; but they hold that the application of it should be restricted within the narrowest limits possible, that the restraint should be applied by means the most humane that can be contrived, should not be long continued without intermission, and should be dispensed with immediately it has effected the purpose for which it was employed." The Commissioners "determine that in the application of the section of the Act 'mechanical means' of bodily restraint shall be and include all instruments and appliances whereby the movements of the body or of any of the limbs of a lunatic are restrained or impeded."

We trust that these instructions of the Commissioners

will be carefully considered by those to whom they are addressed, and acted upon to the benefit of the many lunatics now under supervision and care.

THE President of the Chemical Society, in his annual address to the Fellows, commented in grave terms on the changes in the teaching of chemistry which must follow the regulations of the London Conjoint Colleges. The course of study that has until the past few years been enjoined is well known. The student was required to attend defined courses of instruction in recognised schools of medicine. He was advised to commence his studies in October, when a six months' course of lectures on Chemistry and Physics paved the way for a course of Practical Chemistry in the following summer. It was held that practical work could not usefully be undertaken without preliminary theoretical knowledge. At the end of July the student presented himself for examination, practically at the end of his first year of study. As our readers are well aware, a fairly industrious student could, under this system, acquire a sound, though of course not an exhaustive, knowledge of chemistry. There were drawbacks. The student was but too apt to consider chemistry as a minor subject which might, as far as possible, be ignored. Perhaps he missed some of the earlier lectures and thereby rendered the following ones, in which fundamental principles were expounded, unintelligible. Perhaps he was simply lazy. In either case he learnt next to nothing, and was compelled sooner or later to have recourse to private tuition. The system was by no means perfect, and was susceptible of modifications which will occur to all. In many, if not in all, medical schools the lectures had been supplemented by class teaching and periodical class examinations; but, in spite of all efforts at improvement, the scientific knowledge obtained by the average student was far less than friends of medical progress would wish.

But another consideration pressed upon the Examining Board, and led to other regulations. So rapid is the stream of discovery that every year adds to the tasks of medical students. It had indeed become almost impossible for anyone not rarely gifted and rarely diligent to satisfy all the demands made upon him. Each teacher naturally regards his own subject as of the utmost importance, and is discontented if he finds his pupils neglecting it for others. There is an evident danger that the practical study of medicine and surgery may suffer from the increasing demands of pure science. It is the duty of the Examining Boards to preserve a just balance between the claims of theory and practice, not encouraging students either to become mere empirics or to sacrifice practical skill for theoretical knowledge. We are not surprised that the Conjoint Colleges thought it right to make a change in regard to science in the medical curriculum, and can but regret that a satisfactory system has not yet been devised. That the existing regulations are unsatisfactory, and are calculated to lower rather than to raise the standard of medical excellence, must be apparent to all scientific men. Dr. RUSSELL, who is not only President of the Chemical Society, but also Lecturer on Chemistry in St. Bartholomew's Hospital and an experienced examiner, urges that these regulations can only act as a direct incentive to "cram"; and if this proposition be established, it is evident that one more new departure must be made.

With all its admitted imperfections, the old system had this advantage—the scientific teaching was committed exclusively to recognised schools in which the teachers might as a class be credited with broad views on education as well as with skill and experience. But the Examining Board, while still insisting that a certificate of study shall be presented, is now willing to accept the certificate of any private teacher, without even insisting on his being attached to a recognised teaching institution, and without respect to his competency for the task he has assumed. Any private individual, even though he has had no scientific education and possesses no diploma, may, if he chooses to dub himself a teacher, give a certificate which will satisfy the Royal Colleges of Physicians and Surgeons. The primary examination, which is the only test of scientific knowledge imposed upon the medical student, covers a wide range in chemistry, although but a narrow one in physics, which is, perhaps unwisely, included with it. Its sole value depends on sound and conscientious teaching. The arrangements for scientific instruction in the hospital schools are amply sufficient, and a few simple modifications would provide students with the sound basis of science, which is essential for their future progress. At present the student may ignore the hospital lecturer altogether, or he may enter in the summer, acquire in three months a smattering of theoretical and practical chemistry and physics, and, if he be lucky, may pass in July. He will know next to nothing of chemistry or physics, but he may pass.

Further changes in the Primary Examination are now under consideration, and a report dated March 17th, 1890, of the Committee of Management, has been printed. To this is appended a new synopsis for chemical physics, inorganic chemistry, metals, organic chemistry, and practical chemistry, which is recommended by the examiners and approved by the committee. In this synopsis the range is greatly simplified, and, if the present arrangements for teaching and for the giving of certificates are to be maintained, it is therefore, perhaps, to be preferred. But it cannot be considered satisfactory that so meagre a knowledge of pure science should be considered sufficient for a profession which depends so greatly upon it.

One simple change would, perhaps, lighten the work of the hospital school and the medical student, and raise to a notable extent the scientific knowledge of the medical practitioner. The authorities might insist that the rudiments of chemistry and physics should have been acquired by the student before he entered on his purely professional studies. Every student would in that case be able to understand the lectures to which he listened, and the lecturer would then, being relieved from elementary drudgery, be able to carry his teaching further than is at present possible.

THE report of the House of Lords' Select Committee on Sweating is now before the public, and its conclusions, it will be recognised, thoroughly endorse what we have long urged on the subject. The framers of the report write with timidity and hesitation. They do not go to the full length

of adopting all the remedies we suggested, but what they do propose harmonise completely with what we have insisted upon ever since we first raised the question in the spring of 1884. At the very opening of the report the Lords' Committee remark that "every cause which tends to produce and perpetuate sweating is at work in the most concentrated form in the clothing trades." It was in view of this fact that we centralised our investigation chiefly on the tailoring trade. Our reasons were twofold—first, because sweating was more generally practised in this trade; and, secondly, because it involved a greater risk to public health. Not only do the workers suffer, but the clothes are made under such conditions as to occasionally convey disease to the purchasers. We gave instances where clothing was made up in fever dens. The Lords' Committee confirm this assertion, and they quote Mr. MUNRO'S evidence that he had seen people with the garments they were making thrown over their shoulders for the sake of warmth, and knew a case where a child, suffering with measles, had thus been covered with these garments. We gave many instances of the overcrowding of workshops. The Lords' report describes cases where the size of the workshop allowed of only 130 cubic feet of space for each workman. But this overcrowding is rendered much more injurious by the flaring gas-jets and the sulphurous exhalations from the large coke fires used to warm the pressing irons. Then, the air is charged with the dust from the tearing and cutting of the cloth. All this the report confirms, but does not insist sufficiently on the injurious character of the dust — the dust of shoddy cloth charged with noxious dyes, and inhaled by anæmic under-fed workers.

In our reports we laid great stress on the bad drainage, which so often aggravates the insanitary condition of the sweating dens. Sometimes the closets were only separated from the workshop by a wooden partition, often they had no water, and were in a filthy condition. Very generally there was only one closet for male and female workers. These facts are amply substantiated by the official report just issued. We insisted on the danger of such a state of things, and maintained that the starving condition of many workers greatly aggravated the evil. The Lords' report quotes the evidence of one witness who earned hardly sufficient to buy food. Her meals consisted chiefly of a cup of tea and a bit of fish. "Meat I do not expect," she said. "I might get meat once in six months."

After sitting for seventy-one days and examining 291 witnesses, the Committee give the following verdict:—

"These evils can hardly be exaggerated. The earnings of the lowest classes of workers are barely sufficient to sustain existence. The hours of labour are such as to make the lives of the workers periods of almost ceaseless toil, hard and often unhealthy. The sanitary conditions under which the work is conducted are not only injurious to the health of the persons employed, but are dangerous to the public, especially in the case of the trades concerned in making clothes, as infectious diseases are spread by the sale of garments made in rooms inhabited by persons suffering from small-pox and other diseases.

"We make the above statements on evidence of the truth of which we are fully satisfied, and we feel bound to express our admiration of the courage with which the sufferers endure their lot, of the absence of any desire to excite pity by exaggeration, and of the almost unbounded charity they display towards each other in endeavouring by gifts of food and other kindnesses to alleviate any distress for the time being greater than their own."

It is with no small satisfaction that we reproduce this official statement, since it is an ample confirmation of the great grievances which we were the first to investigate and to describe. In our first special report on the subject we explained that whatever difference may exist between modern sweating and that so graphically depicted by Canon KINGSLEY in "Alton Locke" is due to the number of foreign—principally Polish-Russian—Jews who have sought refuge in London, Leeds, and one or two other places. Ignorant of the English language, these foreigners become the ready victims of sweaters who had lived long enough in England to know how to organise their labour. Ignorant also of English sanitary methods and laws, the Polish Jews contribute to still further depreciate the unwholesome, badly drained houses in which they crowd together. At the same time we insisted that this was but a local grievance affecting only a few districts, and could not be considered as the cause of the evils arising from the system of sweating, viewed in a general sense. Sweating would continue to exist if there were not a single foreigner in England, and the English, especially women and girls, are by far the greatest victims. This opinion is also confirmed by the Lords' report, for they say:—"Further, we think that undue stress has been laid on the injurious effect on wages caused by foreign immigration, inasmuch as we find that the evils complained of obtain in trades which do not appear to be affected by foreign immigration."

The weakest part of the report is that which deals with the remedies. There is no suggestion thrown out which we have not already advanced; but the proposals do not go far enough. On July 21st, 1888, we published a series of recommendations. The first was that Clause 69 of the Factory Act should be abrogated, and the Act consequently extended to all private rooms and dwellings where work is done. The Select Committee now endorse this proposal, quoting the opinion that Clause 69 "is more a protection to the sweater than to the worker." Our second proposal was in favour of a compulsory registration of all places where work was done, and an open registry containing the addresses of the workpeople. This proposal is also accepted by the Select Committee. Naturally the staff of inspectors will have to be greatly increased, but the Lords have some doubts as to the merits of our demand that some of the inspectors should be workers having practical experience of the tricks of the trade. They, however, agree that inspectors should have the right of entry at all times, and that the various services should be brought together so as to put an end to conflicts between inspectors acting under the Factory Acts and those who seek to enforce the sanitary laws.

It will be remembered we insisted that it was the duty of the Government and of the local authorities to prove themselves model employers of labour. Contracts therefore should be refused where there is subcontracting or sweating, and should not be granted to contractors who

pay an inhuman rate of wages, or do not possess wholesome workshops. This principle is fully accepted by the Select Committee, and they point out that, to a certain extent, it is already enforced, notably by Mr. NEPEAN, the director of contracts for Government clothing and accoutrements. Unfortunately the Committee do not deal with the question which we have raised as to how sanitary workshops are to be provided. This, we urged, could be met by the creation of municipal workshops on the same principle as that on which municipal markets are established. Food improperly stored may be contaminated, so also with clothing. Motive power is required for the efficient and scientific ventilation of workshops, as well as to supersede the use of the treadle in working sewing machines. For one or two workshops this would be too expensive. But one engine could supply motive power to a great number of small workshops contained in one large building constructed specially for the purpose, and here might come and work those who now toil in unwholesome private houses. The duty of inspection would thus be greatly simplified, and the public would safeguard themselves against infection by purchasing clothes so stamped as to prove that they had been made in the municipal buildings. It cannot be expected that sweating dens will be abolished unless some better sort of accommodation is provided in their stead. It is to be regretted that this important phase of the question is not included in the report of the Select Committee, nevertheless there is every reason to believe that considerable good will result from the investigations the House of Lords have undertaken and carried out with much patience and perseverance.

THE narrowness of the mere specialist is to be guarded against in all departments of medicine. This truth ought to be remembered by the student, and by the young, as well as by the more advanced practitioner. The student is apt, even during his curriculum, to fall a victim to the cramping influence of specialism; sometimes led on, it may be, by the dazzling results of a not too conservative operative surgery, to neglect or discount the careful study of physiology and pathology, he determines to devote himself in the future exclusively to surgery, often forfeiting the opportunities during his student days of acquiring a thorough grounding in the principles of the entire range of professional subjects. He forgets that the practitioner who is the best qualified to pursue any particular branch of medicine or surgery is the man who during his whole course of systematic study endeavours, above all, to fit himself to become a thoroughly scientific physician or surgeon. The searching examinations of our various licensing boards for entrance to the profession tend to discourage specialism by exacting from candidates a thorough knowledge of the various departments. Soon after entering the professional ranks, however, the young practitioner perhaps determines to take up a special subject, selecting one according to natural bias, or sometimes from force of circumstances, especially if he settle in a large centre of population where specialists abound, and he slowly develops his particular subject, until possibly it entirely absorbs his energy, while a corresponding contraction of his mental vision results. This applies with greater force to the established specialist, who has for years continued an exclusive practice, and has more or less unconsciously developed this narrowness, which we so much deprecate. We do not mean to deny that, in these days of eager research and of improved methods, division of labour in the healing art is not somewhat of a necessity; but whilst the public may be to a certain extent a gainer by such division, it must be admitted that the result is not favourable to the development of medicine as a whole, or to the *morale* of its professors.

We have been led to draw attention to this subject by noticing a communication made recently to the annual meeting of the Texas State Medical Society by our Dublin *confrère*, Dr. MORE MADDEN, on "Observations on the Utility of Constitutional Treatment of Chronic Diseases peculiar to Women." Gynæcology is often practised as a narrow specialism, and unfortunately the history of its modern development to a large extent consists in a series of disputes by the various supporters of conflicting theories, each contending for his special view as to the pathology of the pelvic organs. The author of this paper draws attention to the misconceptions which prevail regarding the constitutional and local treatment resulting from these various theories. At one time we had the theory of "chronic inflammation" and "ulceration," with the too frequent employment of specula, and application of escharotics, which was succeeded by the displacement doctrine and the subsequent exhaustion of "inventive fertility" in regard to the designing of new pessaries and other supporting apparatus. Various theories have modified or displaced the mechanical doctrine, and old views have been revived, illustrating that in modern gynæcology progress is often in the direction of a circle. Dr. MADDEN wishes to impress upon his brethren in America "the physician's place in gynæcology," and the necessity of carefully noting the constitutional predisposing causes which are often overlooked in gynæcological practice. He points out the necessity of diagnosing, if possible, the diathetic tendency of the individual, and very honestly refers to a case in his own practice, published in THE LANCET some time ago, in which he and other gynæcologists became the victims of this specialistic narrowness. This was in the case of a patient who had suffered for a long time from symptoms pointing to the pelvis as the origin of her troubles. She had been treated "by others for retroversion by mechanical expedients only," and for a time he did the same. "Every pessary—and the number was almost countless—that I tried, however well it might fit, was practically useless," and he adds, "he learned *at last* that she inherited gout, and on examining found her urine laden with uric acid." Combined with local measures, constitutional treatment was now adopted, and she "thenceforth remained practically free from further discomfort." Such lessons may be useful to specialists in this country as well as in America, where so much has been done for the diseases of women, and where, owing to the prevailing enthusiasm, the future of gynæcology is big with hope and promise.

HOSPITAL SUNDAY FUND.—The Lord Mayor has received an intimation that the late Mr. Thomas Crouch of New Union-street, Cripplegate, has left to the Hospital Sunday Fund the sum of £1003, without deducting 10 per cent. legacy duty, which will probably be refunded.

Annotations.

"Ne quid nimis."

THE UNIVERSITY OF LONDON.

AT the annual meeting of Convocation on Tuesday next, in addition to any general discussion on the latest scheme published by the Senate which may arise on the presentation of the interim report by the Special Committee of Convocation, the definite question of lowering the medical degrees of the University will be raised. Dr. Sansom has given notice that he will move: "That this House disapproves of any such change in the regulations of the University as would reduce the standard of attainment for degrees in the Faculty of Medicine to a lower level than that for degrees in the other Faculties." We doubt if the wording of this resolution is altogether felicitous, for it introduces a controversial element as to the standard of the other degrees, and does not seem to be opposed to a general lowering in all the degrees of the University. If objection be taken to lowering the existing standard for the medical degrees, it would have been better merely to have stated this; and then if it were carried, it would have been a guide to the Senate in shaping their policy, whilst this resolution is not sufficiently definite to demand notice should it be found convenient to ignore it. The Senate is apparently desirous to adapt the University to the recommendations of the Royal Commission, and it is rumoured that it will probably propose to subdivide the future Senate into three standing Committees—one to deal with provincial Colleges and non-collegiate students, another to deal with University and King's Colleges and the higher education in London, and a third with medical regulations and examination; the three Committees being under the control of the Senate as a whole. In this way it is hoped that a solution may be found for the two difficulties of providing for collegiate teaching in London, and for giving medical degrees to London students on suitable terms, while at the same time the necessity for a Teaching University in London will be avoided. A vacancy has occurred in the Senate by the resignation of Mr. Thiselton Dyer, and, according to the usual custom, should be filled by a graduate either in Science or in Medicine. All names must be sent in to the Clerk of Convocation on or before June 10th, and the election will take place on the 24th of that month.

BABY FARMING.

OF the work which is being done by the National Society for the Prevention of Cruelty to Children no part is more necessary or gives promise of more fruitful results than that which concerns the protection of infant life. The practice of baby farming, though checked by special legislation, still thrives under various disguises. It has happened, indeed, with this as with many other evils, that the first effect of directly repressive measures has been rather to increase its vitality by stimulating the skill of its supporters, and some idea as to how far this is true may be learned from an article by Mr. Benjamin Waugh in the *Contemporary Review* for the present month. According to the information here given, which has been gathered for the most part by the agents of the Society above named, the system as now commonly practised is divisible into two principal sections. On the one hand we have to deal with the work of procuring the children, on the other with that of receiving and disposing of them. We have, in fact, a regular trade established, with a body of persons acting like middlemen between the parent and the child's ultimate owner, who very frequently know nothing of each other. By means of advertisements, commonly mendacious, couched in terms of parental tenderness, and supported by the testimonial of some respectable person, and by a personal aspect of quiet gentility, these infamous women are easily able to obtain the successive temporary possession of numerous "unwanted" children. The engagement is for so much; it may be £5 for a poorer or £200 for a richer client; the infant need not be seen again. If it is the will of Providence to take it, it may be better, so they say. Anyhow, the receiver must next have it, and a rapid journey to some outlying district finds this last possessor. If she really care for the child there is a chance of its living; if not, it is almost certain that it will come, through gradations of pain, starvation, and disease, to an early grave. In order to attain this purpose no extraordinary means are needful. On the contrary, they are eminently undesirable, since any precipitancy in the final issue would attract the inconvenient attention of neighbours, and perhaps a measure of stern justice at the hands of the coroner. No, the process must be more gradual. Neglect will suffice for the work, or, better still, the systematic administration of improper food. The accounts published from time to time of what is implied in the term "neglect" may well appear almost incredible. We find infants of a few months old mere shrivelled and fevered skeletons, infested with vermin, shivering in fireless rooms in bleak winter weather, unclad in the day and at night huddled together on a foul-smelling bed under no other covering than an old coat. All this, too, because the receiving owner wishes a pound or two to buy tea or snuff, or to eke out a pittance in old age, and because the infant is inconveniently related to an unmarried mother. Sometimes, indeed (though by no means always), the latter but for shame would be a true parent enough. Under fear of exposure she answers an advertisement. Her child is adopted, as she trusts, by that quiet and motherly, though (to her own sorrow) childless woman who met her at the railway station. It is paid for, and she sees it no more, but understands it is well cared for. Meanwhile the poor encumbrance is out of reach, and sinking through its tardy misery to the grave. It is as much in the interest of such unhappy though not wholly unworthy parents as in that of the children that Mr. Waugh advocates a still stricter exercise of legal control. The Infant Life Protection Act requires material amendment, and must apply to the case of individual nurse children if it is to meet the difficulty in an effectual manner. Meanwhile the work of prevention is considerably aided by the efforts of the National Society to rescue these wretched children as mere victims of cruel neglect, and by the deterrent effect of its interference on any who may be involved in their maltreatment. It has been suggested that a special "Care of Children" Act would be in every way advantageous, and this will not be denied, though it might be better in some respects to include any such measure in the older Act to which we have just referred.

THE HOT-AIR TREATMENT OF PHTHISIS.

PROBABLY no disease has had more remedies suggested for its cure than phthisis. Very few of the new methods introduced, however, have proved of any use, and have one by one been discarded. One of the latest, suggested by Halter and Weigert, seems likely to follow the fate of its predecessors, if, indeed, it has ever been seriously considered. Halter maintains that the tubercle bacillus will not live in a temperature of more than 41° C.; and therefore suggests that if patients can inhale air at a temperature above 41° the bacilli will be killed, or at any rate be rendered harmless, and thus the course of the disease stayed. Mossi and Rendelli have already shown that in dogs, when the inspired air is at so high a temperature as 150° to 160° C, the tem-

perature in the large bronchi is only 39·3°. In the *Deutsche Medicinische Wochenschrift* for April 10th, Dr. Ernst Sehrwald of Jena publishes some interesting experiments that he has made on dogs with regard to "lung temperature." Thermometers were introduced between the costal and parietal layers of the pleura on each side. By means of an ingenious apparatus the air could be introduced through the nose or directly into the trachea, and the temperature of the inspired and expired air carefully ascertained. After an elaborate series of experiments, Dr. Sehrwald came to the following conclusions: — 1. Dry air can be inhaled through the nose, while the temperature of the air is gradually raised from 50° to 350° C.; the temperature in the pleura at the same time only rises 1° C., even although the experiment be prolonged for one hour and a half. 2. An equal rise can be obtained by rapid and forced respiration. 3. The mucous lining of the trachea is much more sensitive to hot dry air than is that of the mouth and nose, for in the former the temperature of the air cannot be raised above 80° C. 4. When hot dry air is inspired, the frequency of the respiration rises from 80 to 144 in the minute. 5. The temperature in the lungs rises at the same time, but only 1°. 6. Halter's view that the tubercle bacilli are killed by a temperature of 41° is not proved to be correct. Even if it were, the mass of bacilli embedded in the lung tissue would only be affected by heating the tissue itself, and by his (Sehrwald's) experiments it has been shown that a sufficient rise of temperature within the lungs cannot be obtained by the inspiration of hot dry air, and that therefore this treatment is useless in phthisis.

THE ABUSE OF HOSPITALS AND MEDICAL DISPENSARIES.

IT will be seen from the letter of our Belfast correspondent that the abuse of medical charities, which is so common in England, and to which in these columns we have so frequently called attention, prevails also on the Irish side of the Channel. The matter was brought before the notice of the Ulster Medical Society during the present winter session. They appointed a special committee to investigate the subject, and when they had reported to the members it was decided to send deputations to those hospitals where it had been ascertained clearly that abuses prevailed. As our correspondent writes, a deputation waited on the board of management of the Royal Hospital, Belfast, on Saturday last, and on Monday another deputation appeared before the dispensary committee. It has also been arranged to approach the committees of the two Children's Hospitals on the same subject. The deputations were received most courteously. All parties admit there are abuses. The difficulty seems to be how are these to be obviated. We trust and hope a way will be found. It is little short of a scandal that struggling practitioners should be placed at a serious disadvantage through the indiscriminate giving of charity to those who are quite able themselves to pay for medical attendance.

CANTHARIDES PLASTER.

IN a recent number we published a letter from a correspondent who stated that under proper precautions he had been able to procure a beautiful crop of micrococcus pyogenes aureus, or staphylococcus pyogenes aureus of Rosenbach, in a tube of sterilised nutrient fluid inoculated with material drawn from a cantharides plaster. As a result, our correspondent thought himself justified in giving a general warning to wholesale chemists on the importance of taking heed "where they get their tallow to prepare fly blisters with." This serious warning, although undoubtedly well meant, appears to have been based upon insufficient consideration of the problem. Another correspondent very justly remarks that, according to the British Pharmacopœia, cantharides plaster is directed to be prepared, not with tallow, but with yellow wax, prepared suet, prepared lard, and resin, and that these substances are submitted to considerable heat, whereas the cantharides powder is added, with stirring, while the mixture cools. Still, in spite of this inaccuracy it is well known that troublesome pustulation frequently follows the application of cantharides plaster, and the presence of the micrococcus is extremely suggestive, whatever its ultimate source may be found to be. The question is too important to be allowed to resolve itself into an attack upon wholesale chemists; indeed, this would be manifestly unjust upon the very scanty data supplied. Before those responsible for alterations of the British Pharmacopœia issue their promised report, it is to be hoped that they will decide whether it is ever desirable to employ powdered cantharides in preference to liquid preparations.

COMPARISON OF ARTERIAL WITH VENOUS BLOOD.

COMPARATIVE researches on the characters and composition of arterial and venous blood have been undertaken by many chemists and physiologists, and some have become classical and are constantly quoted in physiological textbooks, as, for example, those of Davy, of Prévost and Dumas, Lassaigne, Denis, Thackrah, Simon, Lehmann, and Nasse. A fresh contribution to the subject has just been added by Dr. F. Krüger of Dorpat, whose experiments were in all instances made upon cats which had been fed for the last time about twelve hours before being subjected to examination. Special arrangements were made for obtaining the venous blood returning from the liver, kidneys, spleen, or other organ, but it was taken for granted that the arterial blood possessed the same composition throughout the system, and the blood of the carotid artery was in all instances taken as the standard of comparison. The carotid artery was selected partly on account of its accessibility and partly because it was believed that its division and the subsequent application of a ligature after the withdrawal of from three to five cubic centimetres of blood would influence to a trifling degree only the circulation in the several organs. The blood that was abstracted was immediately defibrinated and the amount of hæmoglobin estimated by Hufner's spectro-photometer. The general results obtained by Dr. Krüger from a large number of experiments may be thus given. The dry residue after evaporation and the quantity of hæmoglobin in arterial and venous blood of the carotid artery and jugular vein—that is, of arterial and venous systemic blood—does not differ to any appreciable extent. The slightest arrest of the current of blood—the most transitory stasis in any region of the body—causes an increase in the quantity of dry residue and of the hæmoglobin in the blood traversing this region. In regard to the blood proceeding to the liver by the vena cava and returning from it by the vena porta, Dr. Krüger finds that there is often a well-marked difference, but the difference is not constant, the quantity of hæmoglobin and dry residue being sometimes in excess in one vessel, sometimes in the other. The blood of the superior vena cava is poorer in hæmoglobin and dry residue than either the blood of the vena porta or of the splenic vein. As a rule, though with occasional exceptions, the blood of the splenic vein contains more hæmoglobin and solid residue than arterial blood. He was unable to demonstrate any difference in the quality of fibrine contained in the blood of the splenic artery as compared with that of the splenic vein, and the specific gravity of the blood of the two vessels varied, but the

serum of the arterial blood, as well as the solid constituents of the serum, were always greater in the arterial blood. He entertains no doubt that hæmoglobin is both manufactured and destroyed in the spleen. In regard to the kidneys, it appeared that renal venous blood is poorer in hæmoglobin and dry residue than renal arterial blood, and it contains less fibrine, and hence its specific gravity is less. The specific gravity of the serum is also less. Lastly, the colouring of the blood seems to be destroyed to some extent in the kidneys. Experiments such as these are in the right direction, but what the physiologist of the present day requires from the chemist is information in regard to the changes which the several constituents of food undergo after their introduction into the economy, and especially after their absorption into the lacteal and vascular systems.

THE AFRICAN KOLA NUT.

AT a meeting of the Balloon Society, held at St. James's Hall on the 18th ult., Mr. T. Christy read a paper on the uses of the kola nut. It is well known this fruit has long been in use amongst the natives of Western Africa when on long and tedious marches, as it is said to possess great sustaining and stimulating powers. Travellers declare that not only does this nut reinforce the system when it is debilitated by fatigue, but that it also quiets temporarily the pangs of hunger and thirst; and, in fact, the natives frequently carry powdered kola in lieu of provisions. Analysis has shown that it contains 2·5 per cent. of caffeine, with very little tannin (about 1·5 per cent.), being much better in this respect, therefore, than tea, which usually contains at most 2·5 per cent. of the alkaloid, with 16 or 17 per cent. of tannin. At about the same time a communication from Dr. Heckel of Marseilles was read at the Paris Academy of Medicine on the same subject, in which the writer suggests that powdered kola nut should be used as part of the soldiers' rations as a preventive of fatigue on long marches. He mentions a test made during the manœuvres of the Sixth Army Corps, among other instances, in support of his statement. From these facts there seems every chance of kola becoming in course of time a powerful rival of tea and coffee, as well as a substitute for so-called "pick-me-ups."

HEALTH AND MORTALITY STATISTICS OF MINERS.

THE present agitation in favour of the restriction of the hours of labour, more especially in connexion with mining, has led to a discussion in many quarters of the effect of mining upon the health of those engaged in this occupation, and a well-known mining engineer in the north of England has recently asserted that the health statistics of miners in some districts are even more favourable than those of agricultural labourers. This assertion has been very properly called in question on the strength of statistics published nearly twenty years ago by the late Dr. Farr. In the discussion, however, no reference has been made to the more recent and more detailed researches on the subject in Dr. Ogle's valuable report on Occupational Mortality, based on the experience of the ten years 1871-80, and published in the supplement to the fifty-fifth annual report of the Registrar-General. These more recent statistics, while not bearing out the assertion that miners enjoy healthier lives than agricultural labourers, show that coal miners and the miners in the North Riding of Yorkshire, and in other ironstone districts, aged between twenty-five and sixty-five year , were liable in 1871-80 to a lower death-rate than the mean rate among all males at the same ages. Taking 1000 to represent the mortality figure of all males at the above-mentioned ages in the ten years under notice, the figure for labourers in ten agricultural counties was 701; for miners in nine counties where the mining was almost exclusively for coal, it was 891, and for miners in the North Riding and other ironstone districts it was 834. Among the miners in Cornwall—mainly tin and copper miners—the mortality figure, however, was as high as 1839, against 1000 for all males. With regard to coal miners, Dr. Ogle wrote: "The death-rates of coal miners are surprisingly low. In spite of their terrible liability to accident, and their constant exposure to an atmosphere vitiated by coal dust, by foul air, and by an excessively high temperature, the comparative mortality figure of these labourers is considerably below that of all males." This rule holds good, not only for the aggregate of all the miners in the nine counties dealt with, but for each of the six great coal areas taken separately, excepting only South Wales and Monmouthshire, where the exceptionally high rate from accident causes the mortality to exceed the mean for all males. This surprisingly low rate of mortality among coal miners, the specially hazardous nature of their occupation being taken into account, is very carefully discussed by Dr. Ogle in the report referred to, and the fact that the mortality from this class of labourers from phthisis is 43 per cent. below the rate from the same cause among all males is particularly dwelt upon. The comparative immunity of coal miners from phthisis is a subject, as Dr. Ogle pointed out, that has not been sufficiently investigated or satisfactorily explained, more particularly when "their liability to irritation of the lungs from dust and the alternations of temperature and other conditions to which their work subjects them are taken into account." The fact, however, has been commented upon by Dr. Boens Boisseau and Dr. Schoenfeld, both of whom had great experience in the Belgian coalfields; and similar conclusions have been arrived at by Dr. Hirt, based upon observations derived from experience in the coalfields of Upper Silesia. Indeed, Dr. Hirt wrote: "It is in the highest degree probable that coal dust possesses the property of hindering the development of tuberculosis, and of arresting its progress." Such a definite suggestion, supported as it is by wide-reaching experience, calls for searching investigation. The apparently low death-rate of coal miners is indeed full of interest from many different aspects, as is also the startlingly high death-rate attributed to Cornish miners, to which we shall take opportunity to refer.

THE APPROACHING VESTRY ELECTIONS.

A DETERMINED effort is being made in St. Pancras to bring about a better sanitary condition of the parish. A member of the vestry, Mr. Lazarus, whose name deserves to be known, has persistently endeavoured by his influence among his colleagues to strengthen the hands of the sanitary staff in the difficult work which is before them. This gentleman has now appealed to the ratepayers and electors, and reminds them in a circular letter that one-third of the vestry (forty in number) will retire in May, and that a similar number will be elected in their place on Monday, the 19th inst., at 7 P.M. In this letter he points out the need of the return of men of leisure, culture, and public spirit, and he animadverts on the unfitness of those owning or letting tenement houses to the poor to control the administration of the parish, on the ground that they are not the most disinterested men to select as judges over property which they own, and yet which it is the first and most pressing duty of the vestry to control. We sincerely wish his efforts success, and would point out to ratepayers of the parish that it is within their power to elect a body who will seriously devote themselves to improving the conditions under which their poorer neighbours dwell. A medical officer of health

may recommend, but it is for the vestry to give effect to his recommendations, and unless he be supported, the most able officer may find himself thwarted, and his efforts rendered of no avail. A responsibility therefore rests upon everyone possessing a vote. We would gladly see other London parishes, who at the same time will be electing their vestries, moved by the same influence that Mr. Lazarus is endeavouring to exercise in St. Pancras. The enforcement of the sanitary Acts will do more to benefit the poor than the mere employment of money in charity with which the benevolent now too often satisfy themselves.

THE FUNCTIONS OF THE CEREBELLUM.

THE views so ably propounded by Dr. Gowers in our last issue upon the *modus operandi* of the coördinating function of the cerebellum—a function known to physiology since the days of Flourens—deserve the attention of physiologists. The coördination of movements demands, as Dr. Gowers points out, the "coördination of the activity of the cells" of the cerebral cortex. The connexion subsisting between the cerebellum and the cerebrum suggests a path whereby the former can operate on the latter, and necessitates the assumption of an upward impulse from the cerebellum to the cortex cerebri. That the cerebellum itself receives upward impulses from the muscles through the spinal cord is supported by strong evidence, anatomical and pathological; whilst there is no similar ground for believing that the cerebellum exerts its influence in a downward direction, as would be the case were it alone to be regarded as the coördinating centre. The well-reasoned arguments of Dr. Gowers require no further exposition than he has given to them. They seem to be irresistible, and they harmonise the facts bearing on the maintenance of equilibrium and the coördination of voluntary muscular effort in a satisfactory and sufficient manner.

COMMON LODGING-HOUSES.

ON Tuesday the London County Council, by a large majority, adopted the report of their Committee on the Housing of the Working Classes, recommending that the Council should erect a common lodging-house on vacant land in St. Giles's. The Council, under Lord Shaftesbury's Acts, have power to provide dwelling accommodation for poor persons, but it deserves serious consideration whether any large exercise of such powers might not, by retarding private enterprise, do more harm than good. They have, therefore, very wisely, as Lord Rosebery pointed out, employed themselves in studying the whole question of London requirements, and they have thought well to devote their first efforts to improving the condition of those houses which are occupied by the very lowest class of the community. Private enterprise has done little as yet to create a better kind of lodging-house in London, and it is no exaggeration to say that, for want of some incentive, many of these places are unfit for the purposes for which they are used. In Glasgow private enterprise attempted improvements only when its energy was awakened by the competition of the municipal common lodging-houses. At the last moment efforts were made to induce the London Council to abandon its intentions, and it was pointed out that the artisans' building societies were prepared to undertake this work. We are satisfied, however, that the Council have acted wisely in determining not to delay the erection of a house which may serve as a model of what common lodging-houses should be. We do not for a moment suppose the Council will go so far as to attempt to provide for the total wants of London in this respect; this may well be left to private enterprise and to the associations engaged in the erection of dwellings for the poorer classes; but the action of the Council will give an impetus to the work which must be largely undertaken if the common lodging-houses of London are to serve the purpose of not only providing a night's lodging for a trifling payment, but of accustoming the inmates to better conditions of life. This the Council can do, we do not doubt, without any loss, and perhaps with a benefit to the ratepayers. No one can therefore allege reasonable ground for their holding their hand. The consent of the Home Secretary has, we believe, yet to be given to the Council's proposals, but we do not anticipate that this will be withheld; and we are glad that by our special reports on this subject we shall have helped to bring about so desirable a result.

TISSUE METABOLISM IN CANCER.

FR. MÜLLER (abstract in *Fortschr. d. Méd.*, 1890, No. 9) has made some careful comparative observations upon the urine in cases of cancer and other wasting diseases and in simple starvation. He finds that in the cancerous the excretion of nitrogen far exceeds the amount ingested, and infers that this excess must in consequence be derived from the disintegration of the albuminoids of the body. However, in two out of seven cases this loss was not greater than occurred in other individuals similarly insufficiently nourished. The chlorides were, on the other hand, notably diminished, a fact, he thinks, pointing to the source of the excreted nitrogen—viz., from the organ albumen and not from the circulating albumen. Obviously, however, many diseases share, with carcinoma, in this disintegrating process, as Müller showed to be the case in chronic febrile affections, especially severe forms of malaria, in leukhæmia and pernicious anæmia. Previous observers do not coincide in their statements on this head as regards leukhæmia. Voit and Pettenkofer found no marked evidence of increased metabolism in this affection, and Fleischer and Penzoldt concurred in this so far as regards mild cases. But in severe cases the last-named find the urea to be increased both absolutely and relatively. Sticker and Klemperer arrived at the same conclusion. Respecting pernicious anæmia there is a concurrence of testimony in support of increased nitrogenous excretion. Reverting to cancer, this evidence, Müller thinks, goes to prove that malignant disease excites the formation of metabolic products which are poisonous to the organism. He points out that cachexia develops in the cases of malignant growths, no matter how limited, and without their involving any important organ; whereas a non-malignant tumour may attain great dimensions without affecting the excretion of urea. At the same time no such poison or ferment destructive of albumen can be isolated from cancerous tumours, although the fact pointed out by Feltz, that the urine of the cancerous is more toxic to animals than that of healthy individuals, is, with other facts, highly suggestive of that view.

A HOLIDAY DANGER.

THE swing-boat and the merry-go-round are not of yesterday. They are among the accredited fixtures of holiday pleasure, and the oldest resident would be puzzled to say at what period they were first seen in his neighbourhood. Their security has no doubt been questioned, and this need not surprise any of us who have watched the reckless energy with which their movements are often urged by the showman or the more boisterous pleasure-seekers. Still they hold their place, and probably will for a long time to come. They are fortified by custom, and more or less excused by the fact that with due care (which rarely sits behind the ordinary merry-maker) they need not figure largely among the causes of accident. A certain latitude must therefore be allowed for individual choice in the

matter. As regards the security of bystanders, however, the case is different. Their protection is a public duty, and one, moreover, for which adequate provision is not always made. In this connexion the sequel is instructive. A few days ago, at Liverpool, a child, while looking on at one of these shows, was struck by a swing-boat and seriously injured. The like has happened before. It may only too easily occur again, and it behoves us, therefore, to adopt effectual precautions for its prevention. It is very well, no doubt, to say that children should not be about the swings, but the only practical remedy in such cases is to insist upon their exclusion by means of a rope fence or other safeguard from the dangerous area.

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very small abscess had grown, and a great number of Koch's bacilli were discovered in the pus it contained. On the other hand, in the tubercles of the spleen the specific microbes were very scarce. A guinea-pig was inoculated with the latter and died in sixty-eight days, its spleen and liver being one mass of tubercles. From these cultures were made and other guinea-pigs inoculated; they all died from tuberculosis. This one experiment is perhaps insufficient to prove the danger it was intended to demonstrate. Still, the probabilities of this danger are sufficiently evident to suggest a few obvious precautions. When persons suffering from tuberculosis place musical instruments to their mouths, such wind instruments should be thoroughly disinfected before being used by others.

DIPHTHERIAL NEPHRITIS.

DR. VAN HERWERDEN has found that a broth culture of Klebs-Löffler's bacilli obtained from diphtheria patients injected into the veins of the ears or under the skin of the back in rabbits produced albuminuria in from twenty-four to forty-five hours, and subsequently scantiness of urine and nephritis. The morbid changes found in the kidneys agreed both macroscopically and microscopically with those found in the kidneys of persons who have died of diphtheritic nephritis.

THE MEDICAL SOCIETY OF LONDON.

THE 118th session of the Medical Society of London was brought to a close on Monday evening last, May 5th, by the annual conversazione. The oration, which was delivered in an impressive manner by Dr. A. E. Sansom, will be found in another part of our present issue. Afterwards a reception was held by the president, Mr. Knowsley Thornton, the band of the 2nd Life Guards playing a selection of music at intervals during the evening. The reception-room and library were decorated with flowers and works of art; the latter were kindly lent by the president, Messrs. Agnew, and Messrs. Mac Lean. Several interesting exhibits by Mr. Stewart, the Curator of the Hunterian Museum, were also on view. Mr. Victor Horsley showed photo-micrographic slides illustrating prehistoric trephining. Dr. Armand Ruffer showed slides demonstrating the destruction of micro-organisms in healthy Peyer's patches, while Mr. Andrew Pringle and Dr. Bryce gave demonstrations on photo-micrography, and on the methods of photographic illustration. Mr. Everett Millais gave a demonstration of his experiments on distemper in dogs; Dr. Copeman exhibited a series of blood crystals; and Dr. Sansom a collection of Australian ferns. The evening was a very successful one, about 300 Fellows of the Society and visitors being present.

THE SPINAL CORD IN PELLAGRA.

E. BELMONDO (abstract in *Centralbl. f. Allg. Path. u. Path. Anat.*, 9 and 10) from an examination of twenty cases, asserts that lesions in the spinal cord are invariably present in cases of pellagra. In the acuter forms these take on the character of an acute general myelitis. In the more chronic there is degeneration of the crossed pyramidal tract, varying in degree and extent, but most marked in the lower dorsal region. There is also degeneration of part of Goll's column, together with that of Burdach, these being chiefly in the upper dorsal and cervical region—the lumbar being (unlike tabes) only slightly, if at all, involved. Exceptionally, there may be, in addition to the above, similar sclerosis of the lateral column in front of the pyramidal tracts, or of the anterior column near the nerve root. In two cases, where the pyramidal lesion was very marked, the cerebellar tract was also involved. In the grey matter there was atrophy of ganglion cells. The spinal pia mater was opaque and thickened in the dorsal region, its vessels dilated, and some hæmorrhages had occurred in the inflammatory exudation; often chronic arachnitis (ossificans) was present. The changes were invariably most advanced in the pyramidal tracts, a fact which harmonises with the clinical sequence of motor derangements (including frequently spastic signs) occurring in pellagra prior to the supervention of sensory. Hence he concludes that pellagra is a disease in which associated primary system degenerations occur constantly in the cord, accompanied by degeneration of ganglion cells, chronic lepto-meningitis, and arachnitis. On the other hand, S. Mircoli (*ib.*) found the following lesions in one case of the disease: (1) Great dilatation of the meningeal vessels, with hæmorrhages, and with induration of the surrounding connective tissue; (2) complete closure of the central canal, with new formation of vascular tissue within it; (3) marked vascular dilatation in the grey matter, less in the white substance; (4) slight atrophy, and decrease of cells in the right half of the cervical grey matter; and (5) no signs of inflammation or degeneration in the white columns.

HOSPITAL SUNDAY.

THE secretaries of the various hospitals and medical charities of London will receive in the course of the next few days a copy of THE LANCET Annual Circular, asking for information respecting the work of their several institutions during the past year, with a view to the preparation of the supplement in support of the Hospital Sunday Collection. The ready and painstaking response which similar applications have elicited in previous years leaves us no room to doubt that we shall obtain from our correspondents abundant material for the work; but there are two points to which we desire to draw especial attention, and they are these. First, it is our desire on the present occasion to give prominence to those developments in hospital work and organisation which show that in this important department of public charity and service those who manage are fully abreast of the times, and able on the one hand to appropriate to the service of the sick poor the latest discoveries of sciences and the newest resources of the healing arts, and on the other hand to adapt their work to the varying necessities of the place and the hour. A year which has seen the influenza epidemic can hardly fail to illustrate in the most striking manner this aspect of hospital work. The second point is one, though only too familiar, of the highest significance—namely this, that to be fully available for its purpose the desired information should be furnished to us *forthwith*.

THE ADMINISTRATION OF INFECTIOUS HOSPITALS.

REQUESTS are not infrequently made for codes of rules as to the administration of infectious hospitals erected by sanitary authorities, and but few such codes have been drawn up. It is also difficult so to compile any one code that it shall serve for different hospitals of various sizes, and having staffs both different in number and in status. A code has recently been prepared by Mr. Henry Armstrong for the new infectious hospital which has been erected by the corporation of Newcastle-upon-Tyne at Walker Gate, and which is carried on under Mr. Armstrong's supervision. For a hospital of this character, having some 150 to 200 beds, and having amongst its staff a resident medical officer and matron in addition to a non-resident medical superintendent, the code will be found to be of great use, and to serve in large measure as an excellent precedent. The duties of the several officers are well defined, the attendance of visitors is strictly regulated, the dietaries are set out, and a number of minor, although essential, considerations are dealt with.

THE LIVERPOOL ABATTOIRS.

THE Liverpool City Council have decided by a majority of 25 to 16 to renew the lease of the abattoirs. This decision is in opposition to the recommendations of the medical officer of health, supported by nearly the whole of the medical profession.

FOREIGN UNIVERSITY INTELLIGENCE.

Buda-Pesth.—Dr. Pertik has been appointed Extraordinary Professor of Histology. Dr. Pertik was for four years assistant to Professors Waldeyer and Recklinghausen in Strassburg, and has latterly been prosector or head of the post-mortem department of the new hospital.

Breslau.—Dr. Julius Brück has been raised to the rank of Extraordinary Professor.

Heidelberg.—The Extraordinary Professorship of Hygiene is to be raised to the rank of an "Ordinary" chair.

Berlin.—Dr. Max Wolff has been promoted to be Extraordinary Professor.

Würzburg.—The new operation theatre in the Julius Hospital has just been opened.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Professor Magnus von Huss of Stockholm, aged eighty-two.—Professor Victor Besser of St. Petersburg.—Señor G. J. Devesa, Rector of the University of Santiago in Spain.

THE Croonian lectures will be delivered at the Royal College of Physicians by Dr. Ferrier, on June 3rd, 10th, 17th, 19th, 24th, and 26th. The subject will be "Cerebral Localisation."

SURGEON T. H. PARKE, A.M.D., F.R.C.S.I., &c.

"IN all that belongs to thorough noble manliness, these men will stand pre-eminent above all I have ever met, or can ever hope to meet within the limits of the African continent." Is there any man in the world who would not have these words said of him? Included amongst those of whom these words were spoken was Surgeon Parke. He has served Her Majesty for nine years, and during that time he has been engaged in perilous undertakings requiring for their fulfilment, in a pre-eminent degree, the qualifications of fortitude and courage. He was engaged in the Tel-el-Kebir campaign of 1882, had charge of the cholera camp in Egypt, when two-fifths of the English soldiers were prostrated by the disease, and his report on this epidemic received the special approbation of Surgeon-General Irvine. He served in the Nile campaign of 1884-85, and was one of the survivors of the Abu Klea fight under Sir Herbert Stewart. Surgeon Parke was the latest of the volunteer officers who applied for membership in the Stanley Expedition, and wrote with his own hand the terms of the agreement, to render "loyal and devoted service" gratuitously.

On Feb. 2nd, 1887, his colleagues entertained him at a dinner on the occasion of his departure with the explorer. He left Egypt with Stanley on Feb. 4th for Zanzibar. Naturally quiet in his manner, the fulfilment of his duties attracted but little attention. But it is the occasion which makes the man; and before the party had proceeded far on its way, pestilence, war, famine, experiences surpassing the wildest imaginations of modern romancers, brought the opportunity for the exercise of that watchful skill, gentle patience, and sweet courage, whereby another name has been added to the long record of the heroes of the medical profession. "It requires a calamity," says Stanley, "to teach blacks as well as whites how to live," and, we would venture to add, to teach them properly to value and appreciate the services of a competent medical man. Diseases—some familiar, others strange, alike in development and course—soon began their work among the members of the expedition. Men began to die from small-pox, anæmia, and manioc poison. Ulcers broke out "most rabid; a slight wound or pimple in the foot or leg developing in three or four days to the most ghastly sores several inches in diameter and penetrating to the bone." During the journey of 1400 miles 528 members of the expedition perished from these ulcers, fevers, fatigue, debility, dysentery, starvation, and exhaustion. Lieutenant Stairs has expressed his belief that "Parke had saved the life of every white man in the expedition; he had saved his and he had saved Stanley's twice." In Stanley's own words: "For months Surgeon Parke has devoted his skill, his time, patiently, uncomplainingly, and always with a charming interest in his cases, until at last I have 124 (a full one-third of the expedition) unfit for further travel. In one month, under his care, eighty are in prime condition and fit for active service, and a few weeks later there are only five incurably sick. To emphasise Mr. Parke's skill as a physician and tenderness as a nurse, I must needs produce myself in two instances as a grateful witness. From Feb. 18th to March 26th I was in peril of my life from a large abscess and an attack of subacute gastritis. I could not partake of food, and could not serve myself from weakness. Had I been alone I should surely have died, for the servants could never have treated a sick man to whom food was to be denied. The sickness was repeated ten months later, wherein the stomach was so inflamed that life was not possible without strong hypodermic injections of morphia. But through both painful seasons Mr. Parke's skill and nursing carried me through triumphantly. When the Egyptian refugees from the province joined us Surgeon Parke's duties increased. Every afternoon he called his patients about him, and all forms of hateful disease were treated with a remarkable consideration and sweet patience. Every white officer in the expedition, Emin Pasha, Captain Casati, and the Egyptian officers are indebted to him; and finally, after thirty-four months of noble work, he has the sad office of ministering to the necessities of Emin Pasha after his terrible fall at Bagamoyo, and after twenty days of unremitting attention to him he is prostrated and conveyed to the French Hospital at Zanzibar, where his state becomes so critical that Dr. Charlesworth begs me to hasten to him before it is too late."

On Jan. 16th, 1890, Mr. Parke returned to Cairo, "with great staring eyes and anæmic, convalescing from fever, thin, weak, hardly able to walk upstairs; but a few days later he began his ordinary medical duty at the Citadel Hospital." We cannot refrain from adding the testimony of the general public to the eminent services which Mr. Parke has rendered. At St. James's Hall members of the medical profession were greatly rejoiced to hear the cheers which greeted each mention of his name. This meeting afforded Stanley an opportunity of speaking in most generous and cordial terms of those who had assisted him in his long struggle. While frequent cheers greeted the different names, none were more warm or sympathetic than those raised every time Surgeon Parke's name was mentioned. Of this *The Times* says "there was much cheering, but it should be added that the demonstration in honour of Mr. Parke was very emphatic." Such marks of appreciation coming from such an audience as assembled there afford the best evidence that the entire patience and skill he exhibited have already been widely recognised outside professional circles. Apart from this, he has been awarded the Honorary Fellowship of the Royal College of Surgeons of Ireland, which has thus shown a prompt appreciation of his work. The Khedive has conferred on him the Third Class Medjidieh. The Royal Geographical Society, at the Royal Albert Hall on Monday, the 5th inst., presented him, through the Prince of Wales, in the presence of a brilliant audience, with a medal which had been struck in honour of the services rendered to the cause of science and humanity; and the British Medical Association will present him with their gold medal for distinguished merit.

All this is satisfactory so far as it goes, but we are of opinion that much yet remains to be done before the eminent services of Surgeon Parke will have been amply recognised. If underlying all that is great and true and highest and best in life there are ideas of truth, of duty, of love, and of self-sacrifice, surely it is well to recognise them where they exist

not only in eloquent language, but by actions which speak far more eloquently than words. To a man of Surgeon Parke's temperament, perhaps the greatest honour that he, in his own opinion, could have, he has obtained in the general expressions of approval, and in the knowledge of an onerous duty nobly performed. But this is not enough. The medical profession, too, has a duty to perform, and we trust that they will not be slow in recognising, in some tangible form, such an exhibition of distinguished worth by one of themselves.

COMMON LODGING-HOUSES IN LONDON.

THE County Council of London had under consideration the report of the Housing Committee and the recommendation that the Council, subject to an estimate to be approved by the Finance Committee, should undertake the erection of a model lodging-house to accommodate from 300 to 350 persons. To this an amendment was moved by Mr. Debenham: "That, whilst agreeing with the general tenor of the report, the Council disagree with the recommendations, which pledge the Council to undertake the building of a common lodging-house." In the course of a discussion, the Rev. Fleming Williams characterised the proposal as an extremely moderate one, and thought a great deal of the adverse criticism against it was not against the insignificant details, but against the fundamental principle of the proposal itself. Hon. members shrank from any corporate action which might in their opinion embarrass the freedom or success of individual enterprise.

Mr. LAWSON, M.P., said they were still face to face with the fact that while much had been done for the housing of the artisan classes in London, nothing had been done for those moving in a lower grade, and who required assistance even more. He did not believe that the Council could accommodate, on the basis of their own expenditure, the class of people which at present resorted to the common lodging-houses in London. The scheme was too vast. But they looked upon the recommendation as purely experimental, and he gave it his support.

Mr. LOWLES thought the adoption of the recommendation would have far-reaching effects upon the poorest and most despondent class, and a most important effect upon the general public health. He had all along opposed interference with private enterprise, but at present he saw no private arrangement existing for supplying this very great want. One of the most useful functions of the Council was to look after public health, and they had recognised their duty in this direction by appointing a medical officer to find out the weak points in the sanitary arrangements. He recommended them to consult Dr. Murphy and the medical officers in other large towns and ascertain their opinion on this important subject. On visiting Glasgow he was filled with shame to see that town so far ahead of London. He was not surprised to learn from Dr. Russell that the almost immediate effect of the adoption of the system there was an appreciable improvement in the public health statistics of Glasgow. The common lodging-houses in London were for the most part old and insanitary houses, utterly unfit for the purposes for which they were used. They were subject to inspection, but of a very imperfect kind. THE LANCET, the chief recognised organ of the medical body, had issued a Commission upon this very subject. In one of the reports it says, "It will be seen, therefore, that in urging, as we so often have occasion to do, that money should be spent for sanitary measures, a great economy would be effected in the long run, not merely in saving human life and health, but also in reducing the prevalence of crime, with all its disastrous, degrading, and costly effects." He thought that if Glasgow could make an investment pay 4½ per cent., surely they in London could do as Glasgow had done.

Earl COMPTON (the chairman of the committee) said the chief argument against the recommendation was that somebody else would do what the Council was asked to do, and thought it strange that they should hear of a company somewhere or other ready to embark on this enterprise. He had not heard a single word or received a single letter from any of the Artisans' Dwellings' Companies undertaking to do this work.

On the question being put to the vote, the amendment was negatived by 87 to 24 votes, and the recommendation of the committee was approved.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

King's Norton Rural District.—Much useful sanitary supervision has for years been carried out in this district, and the result has been a marked diminution in the death-rate, which for the last two years has only just exceeded 10 per 1000. The percentage of deaths under one year of age to registered births is also low—namely, 8·8; but still Mr. Francis Hollinshead holds that more may be done in the direction of saving infant life, and he advises accordingly. There has also been improvement as to zymotic diseases, the rate from which has much diminished, and a good infectious hospital is available. But in considering certain occurrences of enteric fever, diarrhœa, diphtheria, &c., Mr. Hollinshead points to further improvements that are needed, and amongst them are the abolition of the old midden-privy, the amendment of damp ill-ventilated dwellings, and further improvement in the private water-supplies. Sanitary inspection by the staff is stated to be efficiently maintained, and the report gives evidence of this being so.

Combined Districts about Newton Abbot.—The three districts for which Mr. W. Harvey acts as medical officer of health had the following death-rates per 1000 during 1889: Newton Rural, 15·4; Wolborough, 15·5; and Dawlish, 17·3. The corresponding rates for the chief zymotic diseases were 1·2, 0·7, and 1·8 per 1000. Measles was very prevalent in the rural district, and prominence is given to the fact that Kingsteignton was the only centre of population which escaped, although situated in the heart of the district, where escape seemed impossible. The characteristics of the village in this respect seem to be that it is not a favourite place for visitors who seek rest and relaxation; and that, standing on a delta, it is damp and foggy, and was formerly marked for its malaria. In view of these local peculiarities, Mr. Harvey asks himself whether these meteorological and topographical conditions can be inimical to the disease. Indeed, his local experience is to the effect that low and moist places are less congenial to the rapid spread of measles than higher and drier ones; the view here embodied relating, however, to spread and not to mortality. Amongst the sanitary works in progress we note that Bovey Tracey is to have a new water-supply. In the two urban districts sanitary work is also maintained; and in the Dawlish district attention is called to the needs of Holecombe, especially in the matter of water-supply.

Taunton Urban and Rural Districts.—The past year was for Taunton borough the healthiest in point of mortality that Dr. Henry J. Alford has had to record; and it is pointed out that the three conditions to which this result has mainly been due have been a pure water-supply, constant and systematic inspection for sanitary purposes, and an improved condition of dwellings and of their surroundings. As regards the water-supply one further improvement is needed—namely, that the service should be constant; and that will shortly be attained. Improvements in the sewerage system, which are needed, seem also in a fair way of adoption. The general death-rate, on a population of some 18,000, was 13·2 per 1000, and the deaths under one year were 118 out of every 1000 births. We have recently referred to the usefulness of the isolation hospital, used jointly by the urban and rural authorities, and it is likely that the work it does will be extended under the system of notification. In the rural district the death-rate was 13·7 per 1000, but there remain conditions as to cesspits &c. which are a ground for anxiety in so far as health is concerned. A good deal of work in improvement of cottage cleansing and the like is in progress, and at North Curry sewerage works have been completed. In both the urban and rural districts reports are made by the inspectors of nuisances as to the current work of their departments.

Hull and Goole Port.—The waterways of these two towns have so much in common that they have been constituted one port for sanitary purposes, and Dr. J. W. Mason reports that, including the inspections still in hand when he closed his record, 2700 vessels had come within sanitary control, vessels bound for Hull contributing by far the larger portion. It is very satisfactory to note that, notwithstanding a long

array of structural defects which were found, Dr. Mason is able to say that, except in the cases of vessels which left the port, all are known to have complied with the sanitary requirements imposed. In this way a great amount of steady improvement must result, both for English and foreign sailors. Iron decks are adversely reported on; they lead to "sweating," and, the iron being above the sleeping berths, dampness of berths and of bedding results. Cases of infectious diseases, whether amongst the crew or in the case of emigrants, were dealt with, isolation in hospital being secured. The importance of this work will at once be recognised when it is remembered that the number of emigrants annually passing through the port often reaches over 60,000. In view of this Dr. Mason calls attention to the need of some special arrangements for the lodging of emigrants in Hull.

Poole Urban District.—The death-rate in this town was 16·09 per 1000 during 1889. From a summary given of a special report on diphtheria, which caused no less than 13 deaths, it would appear that the main cause of the disease was "filth emanations," localities where the disease occurred being also referred to as having "faulty drainage" and being in "a most disgusting and foul condition." Indeed, diphtheria is admitted to be a "filth disease," and it certainly is to be regretted that such obvious conditions of filth should have remained until disease and death were produced. Mr. Lawton does refer to many premises met with in the current work as in an insanitary condition, and the people seem willing to do all they are called upon to carry out, for in no case was any compulsory action taken. Probably what Poole wants is a house-to-house inspection, repeated so as to keep a complete record of all the sanitary circumstances of every separate dwelling and premises properly up to date.

Friern Barnet Urban District.—The occurrence of a number of scattered cases of scarlet fever during the past year very naturally leads Mr. Hugh Stott to refer to the available means for controlling infectious diseases; and these would appear to be almost entirely wanting. In the matter of isolation for diseases such as fever, the district seems to have been hitherto dependent on the London Fever Hospital, an arrangement which is most undesirable, because it may fail at the very moment when it is most needed. That hospital is essentially maintained for the purposes of London, and was never intended to save outlying areas from properly fulfilling their functions under the Public Health Act. There still remain in this district closets that are connected with the sewers, but to which no water-supply is laid on, and since in some of the houses to which they are attached wells are still in use, the whole arrangements tend to uncleanliness and nuisance. A constant water service is one of the points strongly urged upon the authority. The population of the district during 1889 is estimated to have been 6896, and the death-rate is set down as 11·5 per 1000. With the adoption of the improved appliances and administrative arrangements advocated in the report this district may fairly hope to maintain a high standard of health.

Scarborough Rural District.—Dr. R. Cuff reports for 1889 a death-rate of 15·5 and a birth-rate of 22·3 per 1000 living. Schools, and the aggregation of children which they lead to, tended to promote the extension of measles; but now that notification has been adopted the medical officer of health will know when to advise his authority to require the school officials to close their doors either wholly or against children from certain localities, and thus an important means of prevention will be available. It is satisfactory to note the opinion of Dr. Cuff, to the effect that the appointment of a county medical officer of health who shall be an expert, devoting his whole time to his duties, would be hailed as a boon by the small authorities within the county. The tabulated matter at the close of the report shows that the general sanitary work attaching to a rural district is systematically maintained.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5907 births and 3831 deaths were registered during the week ending May 3rd. The annual rate of mortality in these towns, which had been 20·9 and 20·7 per 1000 in the preceding two weeks, further declined to 20·6 last week; the rate was 18·1 in London and 22·6 in the twenty-seven provincial towns. During the first five weeks of the current quarter the death-rate in the twenty-eight towns averaged 20·4 per 1000, and was 1·1 below the mean rate in the corresponding periods of the ten years 1880–89. The lowest rates in these towns last week were 13·6 in Nottingham, 15·6 in Brighton, 15·7 in Portsmouth, and 15·9 in Halifax. The rates in the other towns ranged upwards to 27·9 in Derby, 29·6 in Sheffield, 33·1 in Manchester, and 36·0 in Bolton. The deaths referred to the principal zymotic diseases, which had been 420 and 400 in the preceding two weeks, rose again last week to 418; they included 161 from whooping-cough, 104 from measles, 49 from scarlet fever, 39 from diarrhœa, 38 from diphtheria, 25 from "fever" (principally enteric), and 2 from small-pox. No death from any of these zymotic diseases was recorded during the week in Halifax, while they caused the highest rates in Plymouth, Manchester, Liverpool, Derby, and Salford. The greatest mortality from measles occurred in Birmingham, Plymouth, and Derby; from scarlet fever in Plymouth and Sunderland; and from whooping-cough in Bristol, Liverpool, Oldham, Salford, and Brighton. No marked excess of "fever" mortality was recorded in any of the great towns. The 38 deaths from diphtheria in the twenty-eight towns included 18 in London, 10 in Salford, 3 in Manchester, and 3 in Liverpool. One death from small-pox was recorded in London and one in Hull. Three cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and not one in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital was 1102 at the end of last week, and showed a slight decline from the increasing numbers on recent Saturdays; the new cases admitted during the week were 95, against 83 and 95 in the preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding three weeks from 384 to 345, further fell last week to 326, and were 10 below the corrected average. The causes of 84, or 2·2 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Wolverhampton, Sunderland, Newcastle-upon-Tyne, and in four other smaller towns. The largest proportions of uncertified deaths were recorded in Sheffield, Liverpool, Huddersfield, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 26·0 and 24·0 per 1000 in the preceding two weeks, rose again to 26·9 in the week ending May 3rd, and exceeded by 6·3 that which prevailed during the same week in the twenty-eight English towns. The rates in the eight Scotch towns ranged from 17·0 in Greenock and 18·8 in Perth to 28·5 in Dundee and 33·0 in Glasgow. The 697 deaths in the eight towns showed an increase of 70 upon the number in the previous week, and included 41 which were referred to measles, 37 to whooping-cough, 8 to scarlet fever, 8 to diphtheria, 7 to diarrhœa, 3 to "fever," and not one to small-pox. In all, 104 deaths resulted from these principal zymotic diseases, against 101 and 86 in the preceding two weeks. These deaths were equal to an annual rate of 4·0 per 1000, which exceeded by 1·8 the mean rate last week from the same diseases in the twenty-eight English towns. The highest death-rates from these diseases last week were 4·4 in Dundee and 5·5 in Glasgow. The fatal cases of measles, which had been 41 and 31 in the preceding two weeks, rose again last week to 41, of which 21 occurred in Glasgow, 10 in Dundee, and 6 Edinburgh. The 37 deaths referred to whooping-cough exceeded by 6 the number in the previous week, and included 22 in Glasgow, 5 in Edinburgh, and 4 in Aberdeen. The 8 fatal cases of scarlet fever exceeded those recorded in any recent week, and included 5 in Glasgow. Of the 8 deaths from diphtheria, 2 occurred in Glasgow, 2 in Greenock, and 2 in Leith. The deaths referred to diseases of the respiratory organs in the eight towns, which had increased from 126 to 156 in the preceding three weeks, further rose last week to 159, and exceeded by as many as 49 the number in the corresponding week of last year. The causes of 63, or more than 9 per cent., of the deaths in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 26·5 and 22·0 per 1000 in the preceding two weeks, rose again to 25·4 during the week ending May 3rd. During the first five weeks of the current quarter the death-rate in the city averaged 25·0 per 1000, the rate for the same period being 18·3 in London and 22·2 in Edinburgh. The 172 deaths in Dublin last week showed an increase of 23 upon the number in the previous week; they included 4 which were referred to "fever," 3 to diphtheria, 3 to diarrhœa, 2 to whooping-cough, 1 to measles, and not one either to small-pox or scarlet fever. Thus the deaths from the principal zymotic diseases, which had been 5 and 8 in the preceding two weeks, further rose last week to 13; they were equal to an annual rate of 1·9 per 1000, the rate from the same diseases being 2·5 in London and 2·7 in Edinburgh. The fatal cases of "fever," which had been 2 in each of the preceding two weeks, rose to 4 last week. The 3 deaths referred to diphtheria exceeded those recorded in any week since March, 1888; while the mortality from measles and whooping-cough showed a decline. The deaths both of infants and of elderly persons exceeded those recorded in the preceding week. Four inquest cases and 2 deaths from violence were registered; and 47, or more than a fourth, of the deaths occurred in public institutions. The causes of 15, or nearly 9 per cent., of the deaths in the city were not certified.

THE SERVICES.

ARMY MEDICAL STAFF. — Surgeon George Kilworth Sherman Bigg, F.R.C.S. Edin., retires from the Service, receiving a gratuity (dated May 7th, 1890).

ADMIRALTY.—Clyde Brigade: Andrew Freeland Fergus to be Surgeon (dated April 29th, 1890).

The following appointments have been made:—Staff Surgeon Christopher Pearson to the *Warspite*, for Royal Naval sick quarters at Esquimalt (dated May 3rd, 1890). Surgeons: George L. Baker to the *Lion*, Cyril J. Mansfield to the *Volage*, James J. Walsh to the *Wildfire*, Robert M'Ivor to the *Excellent* (all dated May 2nd, 1890), and Richard Miller to the *Mosquito* (dated May 5th, 1890).

VOLUNTEER CORPS. — 2nd Volunteer Battalion, the Duke of Edinburgh's (Wiltshire Regiment): Henry John Mackay, M.B., to be Acting Surgeon (dated May 3rd, 1890).—1st Dumbartonshire: Acting Surgeon T. F. Macdonald, M.B., to be Surgeon (dated May 3rd, 1890).

Correspondence.

"Audi alteram partem."

PROVIDENT DISPENSARIES.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of May 3rd, p. 988, Mr. Hentsch, speaking for a body known as the Medical League, says that a number of medical practitioners are opposed to the provident scheme. I, however, think that he and a very great many others are opposed only to the gross abuses which are at present almost strangling the provident movement. I am a great believer in thrift and provident schemes for a portion of the wage-earning classes, and I would much rather see the provident scheme allowed to die than wish to see its many evils perpetuated. But so long as the battle is between the "one penny hospital doctors" and the "sixpenny dispensary doctors," or between the doctors who treat well-to-do persons at the hospital and those who honestly treat them for a small fee, so long shall we fail to do good. At present we are the laughing stock of business men, cut up and divided as we are with petty jealousies, charity competitions, and such "professional" and "brotherly" actions.

In 1887 I showed that there were eighty-eight provident dispensaries in England. These had 293,720 benefit members, who paid £52,252 7*s.* Of this latter amount only £34,989 was given to the doctors, even although these dispensaries had an income of £16,691 from honorary subscribers. Now, it is most unfair that the money subscribed for the doctors should be in part taken to pay for drugs, coal and gas, taxes, and wages. The honorary members' fund should meet these items, and more especially so as these dispensaries had a cash balance to their credit of £6065 and an invested fund of £45,567. Talk about "sweating"; here is a case in point. Whose fault, however, is it? Did some of the Manchester doctors not meet a few years ago and abolish their 35*s.* wage limit? Have we as a profession honestly tried to remove these excrescences? Why do doctors not form deputations and ask hospital committees to receive them and consider their side of the question? Why do they not do the same with provident dispensaries, sick clubs, and even with those practitioners who undersell them, and who, with the sacred name of charity on their lips, take the very bread out of the mouths of many a struggling practitioner—the "medical hack," as he has been politely called,—and work a lasting injury on his half-starving wife and family? This, Sirs, is no romantic or over-drawn picture. I have lately had two doctors in my house, who literally cried over their condition and poor prospects. They had hoped to keep the wolf from the door by giving advice for 1*s.* 6*d.* or 2*s.* 6*d.*; but unfortunately they have found that the grab-all and the octopus-like grasp of the medical charity robs them of even this little reward. It is not now the fashion to offer the "cup of cold water" to a professional brother. Rather is it the fashion to work the 15 per cent. philanthropy game, and to proclaim in the market place, "We treated 1500 more patients than the neighbouring hospital last year, thus showing our increased usefulness"! For even such will have their reward. In spite of all this competition, provident and thrift movements must go forward. It will never do for the profession to stand as an obstacle in the progress of thrift. If we condemn the provident movement, then we must condemn the friendly societies, with over 3,500,000 members; we must condemn medical insurance; and finally, we must condemn the three laws lately passed in Germany of compulsory insurance against sickness, accident, and old age. I trust the time will never come when the profession will forget that the first duty of a man to his country is to be a good citizen. If we allow sound schemes to be abused—well, serve us right. If we prefer to be unorganised, and to stand apart simply because matters of detail separate us—well, then again, serve us right.

I am, Sirs, yours faithfully and hopefully,

Liverpool, May, 1890. ROBERT R. RENTOUL, M.D.

REMOVAL OF THE VERMIFORM APPENDIX.

To the Editors of THE LANCET.

SIRS,—Last week, in describing a case of removal of the vermiform appendix, I employed a sentence which is so faultily constructed that it might possibly be read as tending to show a want of appreciation of the work, or even to throw discredit on the originality, of my friend, Mr. Treves. As I am most anxious to remove the possibility of any such meaning being conveyed, I beg that you will insert this correction.

The sentence is as follows: "The treatment of recurrent attacks of typhlitis by removal of the vermiform appendix during a period of quiescence, first, I believe, suggested by Morton of Philadelphia, and carried out now a good many times in America, has recently been prominently brought before English surgeons by Mr. Treves." Read separately and in proper sequence the clauses fairly represent my meaning. In conjunction, and in the sequence they appear, they may, I fear, be perverted to mean that the operation had been originated and performed a good many times in America before Mr. Treves operated in England. I certainly did not intend that such a meaning should be drawn from my words. That Morton of Philadelphia was the first to suggest the operation I believe to be true; I am not aware that he ever performed it. That Mr. Treves originally and independently thought of the operation I believe also to be true; he certainly was the first to operate. Through the happy combination of excellent practical studies on the subject and the narration of striking cases, Mr. Treves at once arrested the attention of the profession, and the subject came into the prominent position which it deserved. A good many operations have now been done in America; so far as I know, Mr. Treves and myself are the only surgeons who have operated in England.

I am, Sirs, yours truly,

Clifton, Bristol, May 5th, 1890. J. GREIG SMITH.

PROLONGED ASITIA.[1]

To the Editors of THE LANCET.

SIRS,—Your remarks on Succi's fast in last Saturday's LANCET served to recall to my mind certain cognate facts which I have since been at the pains to verify, and I venture to submit them herewith in the hope that they may be found to add some further illustrations to the physiology of this curious subject.

The name of General Colletta, author of the "History of the Kingdom of Naples from 1734 to 1825," is one of the most respected in the annals of modern Italy, and his reputation for discernment and veracity may fairly be placed on a level with that of the Duke of Wellington in our own country. His description of the terrible earthquake which in 1783 devastated Calabria, and was severely felt throughout the Kingdom of the Two Sicilies, is of unquestioned authority, and from it the following incidents are extracted. I give them in English, followed by the Italian text to corroborate my translation, and they refer only to persons and animals imprisoned beneath the ruins caused by the earthquake. It is only necessary to add that the facts were ascertained by General Colletta's personal investigations at the scene of the catastrophe.

1. "A female child of eleven years was extricated on the sixth day and lived, and another girl of sixteen years, Eloisa Basili, remained underground for eleven days, holding in her arms an infant which had died on the fourth day, so that it was decomposed and putrefied at the time of her rescue. She was unable to free herself from the shocking burden in her arms, so closely were they hemmed in by the fallen wreckage." ("Una fanciulla di undici anni fu estratta al sesto giorno e visse; altra di sedici anni Eloisa Basili, restò sotterra undici giorni tenendo nelle braccia un fanciullo che al quarto morì, così che all 'uscirne era guasto e putrefatto; ella non potè liberarsi dell' imbracciato cadavere perchè stavano serrati fra i rottami.")

2. "More wonderful still as regards duration of life were certain cases that occurred amongst animals. Two shemules existed under a heap of ruins, the one twenty-two days, the other twenty-three; a fowl lived for twenty-two days, and a pair of hogs, which were completely entombed, remained alive thirty-two days." ("Più maravigliosi per la vita furono certi casi di animali; due mule vissero sotto un monte di rovine, l'una ventidue giorni, l'altra ventitrè; un pollo visse pur esso ventidue giorni; due majali sotterrati restarono viventi trentadue giorni.")

The human beings who had undergone these unwonted privations, when interrogated as to their sensations, replied, "I can recollect only up to a certain point, and then I fell asleep." When it is remembered that all the creatures thus circumstanced were deprived entirely of water or other liquids, it is hardly to be wondered at that though there was no desire for solid food they displayed on their liberation an insatiable thirst, and, the author adds, partial blindness—*sete inestinguibile e quasi cecità.*

I am reluctant to trespass further on your space, but if I may I should like to mention briefly the case of an infant at the breast which was disinterred in a dying condition at the end of three days, *and then recovered.* A pregnant woman lay unassisted for thirty hours beneath a fallen cliff, and some days after her rescue was delivered of a healthy living child. For further particulars I must refer those who are interested to the pages of Colletta, "Storia di Napoli," lib. ii., cap. ii., paragraph 29.

I remain, Sirs, your obedient servant,

Sussex Gardens, Hyde Park, May 5th, 1890. T. FITZ-PATRICK.

[1] The Greek word ἀσιτία, which expresses want of food, either voluntary or involuntary.

PYLORECTOMY.

To the Editors of THE LANCET.

SIRS,—The importance of the paper read before the Medical Society on Monday, April 28th, by Sir W. Stokes cannot be overrated, and must be my excuse for troubling you with the following few remarks. The chief points in the paper were directed (1) to the safest and most speedy method of performing pylorectomy, and (2) the best mode of treating pyloric carcinoma. It was to these two points that I confined my remarks.

First, then, as to the best and quickest way of performing pylorectomy. When conducting my experiments on intestinal surgery, the idea occurred to me to excise the pylorus, and unite the divided ends of the stomach and duodenum by means of approximation plates, in practically the same manner as has been so successfully done by Dr. Rawdon, and which he has so recently published. The portion of duodenum which is surrounded by peritoneum is so very short that in many cases this operation would be, I think, attended with great difficulties, as after allowing for that part which is not surrounded by peritoneum and for the piece that of necessity must be removed when removing the pylorus, there would remain little more than an inch to be dealt with; and this, in my opinion, would be too short to enable the plate to be inserted and fastened without putting undue tension on the parts to be united. When, however, the pylorus becomes obstructed and the stomach dilated, it seems to have the effect of elongating this first portion of the duodenum. In such a case, the plan put into practice by Dr. Rawdon is undoubtedly, to my mind, the best mode of operating. Should, however, the portion of duodenum not be sufficiently long to allow of the plate being safely introduced, then, as an alternative operation, I would briefly suggest that after excising the diseased pylorus, the cut end of the duodenum should be invaginated into itself and fixed by a line of continuous suture passing through the serous and muscular coats. The divided portion of the stomach should be similarly inverted and secured by a continuous suture of fine silk. A gastro-enterostomy should now be performed by drawing a portion of the jejunum out of the wound, and fixing it to the anterior wall of the stomach about an inch from its greater curvature and three or four inches from the seat of the division. This operation could be readily accomplished within the hour, and there would be far less risk of leakage than by uniting the divided ends of the stomach and duodenum together directly.

As Sir William Stokes so well pointed out, the mortality from pylorectomy is great by adopting the method at present practised, and this mortality is due, to a large extent, to shock caused by such a prolonged operation performed on a patient already much reduced by disease. Any suggestion, therefore, which tends to shorten the operation must of necessity be worthy of notice, and, judging from my experience in the experiments before referred to, I look forward with confidence to the day, and that not far distant, when the operation of pylorectomy in suitable cases will compare favourably with such operations as hysterectomy, nephrectomy, and other abdominal operations.

With regard to the second question, as to the best mode of treating pyloric carcinoma in cases unsuitable for excision, I have not the slightest hesitation in saying that gastro-enterostomy by means of approximation plates should be practised. This operation has been performed four times since my experimental researches were published—once by Mr. Clarke of Huddersfield, once by Mr. Stansfield, and twice by myself. In three of these cases the operation was successful, and in the case that died six days after the operation the union of the jejunum with the stomach was everything that could be desired, the man dying purely from exhaustion, pointing to the importance of feeding patients after these operations early with peptonised milk &c. I hope shortly to bring my cases before the profession, with some practical remarks as to the method of operating.

I am, Sirs, yours faithfully,

FRED. B. JESSETT.

Upper Wimpole-street, W., May 5th, 1890.

HYPNOTISM.

To the Editors of THE LANCET.

SIRS,—In your otherwise admirable article on hypnotism you speak of the "influence of mind upon body" and of "the control of mind over physiological or pathological processes." Now, although this is a mode of expression which is not uncommon, it has always seemed to me to be inexact and unscientific. Mind and body belong to totally distinct categories of thought, and any influence of one upon the other is unthinkable. But every change of mental state is accompanied by a corresponding physical change in the highest brain centres, and it is quite conceivable that these physical changes may induce other physical changes in lower brain centres and in remote parts of the body. If, then, instead of the "influence of mind" we speak of the "influence of the physical concomitants of mind" over the

body, it becomes a mere question of anatomy and physiology (or pathology) of the nervous system to determine what the remote effects of these physical changes may be, and there seems to be no reason why they should not also be structural as well as functional. A remarkable instance of this is seen in Carpenter's "Mental Physiology," p. 682, where the physical changes in the cerebral centres corresponding to a psychical state of sudden and intense alarm and distress were such as to produce, without the intervention of any other cause, acute inflammation of three fingers, with suppuration and discharge of sloughs.

I am, Sirs, yours faithfully,

London, April 27th, 1890. R. ROBINSON.

To the Editors of THE LANCET.

SIRS,—The letters on hypnotism lately written in your journal show that the profession generally are beginning to take a great interest in the subject. The question whether it is possible to hypnotise a person against his will is of considerable importance, and has, I believe, generally been answered negatively. The following case, however, seems to prove that it is possible. Last autumn, after seeing the practice of Dr. Liébault at Nancy, I attended Dr. A. Voisin's clinic at the Salpétrière. Among the cases I saw there was that of a girl eighteen years of age, who on her admission was suffering from acute mania, accompanied with painful and irregular menstruation. She had improved much under treatment by hypnotism and suggestion. It was not, however, until the twentieth *séance*, each having lasted twenty to thirty minutes, that Dr. Voisin succeeded in hypnotising her, she always resisting him to the utmost. The occasion on which I saw her treated she resisted to such an extent that it was necessary to have her forcibly held on the bed by nurses, and it was not until after half an hour that she entered the hypnotic state. Here then is a case where a person was hypnotised completely, although strenuously resisting the whole time. Whether it would be possible to hypnotise a sane person in the same manner is a matter of considerable medico-legal importance. Perhaps some of your readers have seen or heard of such cases.

I am, Sirs, yours &c.,

May, 1890. WILLIAM HABGOOD.

ELECTRICITY: ALTERNATING AND CONTINUOUS CURRENTS.

To the Editors of THE LANCET.

SIRS,—Permit me, for Mr. Newman Lawrence and myself, to thank you for the article on this subject in your issue of the 3rd inst. As a commentary on the criticism offered *re* "maximum and effective alternating currents" in relation to their discomfort point, may I refer you to the subjoined brief extract from a letter (copy enclosed) which appeared in the *Electrical Engineer* and other journals of the 11th ult.? After demonstrating the fallacy of certain arguments used by a learned professor during the discussion, and amplified by him in a subsequent letter to the electrical papers, my colleague wrote: "In considering the effect upon the body of possible difference between maximum and effective alternating currents, we have to take into account potential counteracting effects of increased rates of alternation. Our experience, so far, is that the slower the rate of alternation the greater the discomfort for the same current strength. Our paper dealt with a higher rate of alternation than that commonly in use in like circuits. It is therefore highly probable that the increased discomfort which would be produced by the slower alternations of a dynamo circuit would more than counterbalance the possible difference between effective and maximum current due to the use of an induction coil of much more rapid alternation."

I am, Sirs, yours obediently,

ARTHUR HARRIES, M.D.

Suffolk-street, Pall-mall, S.W., May 5th, 1890.

To the Editors of THE LANCET.

SIRS,—The difference which Dr. Harries and Mr. Lawrence have found in the resistance of the body, according to whether alternating or constant currents are used in the measurement, is an interesting consequence and illustration of facts well known to physiologists. Of course, it is only the *apparent* resistance which is different—that is to say, the real resistance *plus* the polarisation. Hermann found long ago that in muscle the resistance for a voltaic current passed transversely was nine to ten times as great as for a longitudinal current, the difference being due to the enormous capacity of the muscle for polarisation by transverse currents. He also found that the apparent resistance is independent of the strength of the current, unless the latter is very strong. In other words, the polarisation is proportional to the current strength. He has since shown that the resistance is much less for alternating than for constant currents, when the interruption is very rapid. It is certain that in the experiments of Dr. Harries and Mr. Lawrence a very large proportion of the apparent resistance, with the constant current, is due to polarisation or transition resistance. When they eliminate this, or greatly diminish it, by using alternating currents, the apparent resistance approximates to the true, and is, therefore, much diminished. The greater the true resistance the larger will be the proportion of polarisation to that resistance for constant currents on the verge of Hermann's limit, if the E. M. F. be kept constant. Accordingly, the apparent resistance for the constant current will be increased in a greater proportion than that for alternating currents, when the contact between the body and electrodes is made worse.

As to the second part of the paper, there seems very little doubt that the intensity of physiological reaction to an electrical stimulus, so far as that is expressed by excitation, depends upon two external factors—(1) the maximum current density which is attained, and (2) the rapidity with which this is reached. For single stimuli, at any rate, the *initial* strength is the important thing, for stimulation will have taken place long before the maximum of polarisation has been developed. But the secondary physiological effects of the continuous current—modifications of excitability and conductivity—and perhaps more physical and permanent changes, will depend on *mean* rather than *initial* strength.

I am, Sirs, yours faithfully,

New Museums, Cambridge, May 6th, 1890. G. N. STEWART.

THE OBSTETRIC BINDER.

To the Editors of THE LANCET.

SIRS,—The letters of Dr. Chadwick and Mr. Duke fail to bring conviction to my mind. The result of one case of Dr. Chadwick's is hardly sufficient to prove anything. I am afraid Dr. Chadwick, in his enthusiasm, must have lost sight of the causes of prolapse and subinvolution of the uterus, if he considers that the binder is a preventive of these conditions, the former being caused (as far as labour is concerned) by (1) too early getting up; (2) loss of support of perineum through rupture; and (3) of vaginal walls through relaxation, the prolapse being increased, I believe, by downward pressure of the binder. Subinvolution after labour is chiefly caused by (1) want of muscular tone, and absence of reflex action caused by lactation; (2) active hyperæmia from injuries, retention of a portion of placenta, &c.; (3) passive hyperæmia, caused by (*a*) too prolonged dorsal position, (*b*) a slight prolapse which occurs after labour, increased by the binder. I have mentioned these well-known causes simply to show that the binder does not in the slightest degree prevent either condition, but is an accessory to both. With regard to my remarks about not applying the binder before the labour is concluded, my practice has always been to express the placenta by pressure, and not by traction on the cord (which pressure cannot possibly be properly applied through a strong binder), so that I am in the dark as to other methods of procedure. Dr. Chadwick also states that he believes the binder aids the uterus to return to its normal position. Does he mean by this that the heavy uterus is pushed into the pelvis? If so, that is exactly one of my arguments, and, in proof of it, let any practitioner examine a patient per vaginam directly after labour, and again after the application of a tight binder. He will find the cervix brought (and of course the whole uterus) very much lower down than its normal position; and I hold that if this pressure be maintained for any length of time, the tendency will be for this condition to become permanent. If, as Mr. Duke says, the retroversion after parturition is caused by long-continued lying on the back (he will see by my letter that I recommended the prone position occasionally), then why increase it by the additional pressure of a binder downwards and backwards?

If for the comfort of the patient a binder is preferred, use one by all means, but have it made in such a manner as to take all pressure off the uterus.

Since writing my last letter, Mr. Haywood of Castlegate, Nottingham, has forwarded to me a binder made in the way I suggested—viz., with a circular piece cut out of it to relieve pressure, which I think will prove useful.

I am, Sirs, yours truly,

HARRY BURTON, M.R.C.S. Eng., L.K.Q.C.P.I.

Marple, May 5th, 1890.

ROARING IN HORSES.

To the Editors of THE LANCET.

SIRS,—In your last week's issue you notice my paper on Laryngeal Operations and their results, under the title of "Roaring in Horses," and, while you review certain statistics therein given, you express a desire for further information. This information I have endeavoured to convey in the following statement.

Roaring in horses is the result of laryngeal obstruction depending on abductor paralysis. This condition Dr. Fleming claimed to cure by removing a more or less extended tract of tissue. It will be seen that this is not cure, but only an attempt to alleviate; and in the paper referred to on page 918 in THE LANCET of last week I considered the result of these attempts. I said that extensive removal of mucous membrane from the larynx was bad surgery, that cicatrisation and contraction continued for long periods, that compression of sensory nerves produced cough and reflex disturbance, and that, though temporary alleviation followed, the last state of the subjects was worse than the first. Further, I quoted the experience of distinguished home and foreign practitioners at length in support of these statements, and gave my own experience. At the Central Veterinary Medical Association I exhibited pathological specimens bearing out these statements. Since June 13th, 1888, when Dr. Fleming (in the *Star* newspaper) first made public "all about the latest cure" for roaring, he has practised four types of operation. The first three—viz., excision of vocal cord, excision of vocal cord and processus vocalis of arytenoid, and excision of entire arytenoid—are fifty years old at least, and have always proved abortive; the last (excision of arytenoid and vocal cord) is an unimportant modification of the operation of Professor Möller of the Berlin Veterinary School. Each of these he practised and in turn abandoned, and, as shown by the public press, the operations have now been finally forbidden in the army. Though Dr. Fleming avoided his brother practitioners and published his announcements in lay papers, it was thought advisable to test the reliability of his representations by submitting horses to the various operations. This was done at Newcastle on July 18th, 1888, at a meeting of the National Veterinary Medical Society, and Professor Smith, A.V.D., was the operator. The report made in October, 1888, by those deputed to watch the experiments was that the horses were "no better, ... and upon the slightest exertion make as much noise as ever." Again, on May 24th, at Wolverhampton, three horses were operated on, and the Committee of the Midland Counties Veterinary Medical Association, which conducted the experiments, reported that after an extended trial the horses proved worse than before. A notice of that report was commented on in this periodical, and a request made that further statistics should be submitted. I have had the honour to submit to you the statistics of seventy-one operations, the *first statistics published*, despite the fact that the veterinary profession has importuned Dr. Fleming for some information for nearly two years past.

I am now asked the sources of my information. The "results as stated by Dr. Fleming on oath" are copies of replies to interrogatories made by Dr. Fleming during the progress of some legal proceedings. The "results, as shown by official returns," are copied from the medical sheets of the horses operated on, and kindly submitted for inspection by the Hon. Mr. Broderick of the War Office. It will be noticed that in many cases these statements do not agree. If desired, I shall be pleased to submit the original documents for inspection.

I am, Sirs, your obedient servant,

JOHN A. W. DOLLAR, M.R.C.V.S. Lond.

New Bond-street, W., March 30th, 1890.

UNIVERSITY OF LONDON.

To the Editors of THE LANCET.

SIRS,—Some weeks ago you kindly inserted a notice that a "protest" against the proposed alterations in the examinations for medical degrees of the London University had been drawn up for signature. Will you now allow me to make known through your columns that this protest, to which are attached 595 signatures of graduates and undergraduates (mostly the latter), has been forwarded to the Senate, and its receipt acknowledged by the Registrar.

I am, Sirs, yours truly,

St. Bartholomew's Hospital, E.C., May, 1890. R. C. BAILEY.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Camping out for Boys.

THE annual report of the Newcastle Summer Camp for Poor Boys has been issued, and it shows that this society has been enabled to do a large amount of good, although only in full operation for two years. Last year 172 boys, selected out of 272 applicants, had the benefit of the camp at the seaside near Whitley, the camp opening on June 1st and closing at the end of September. The boys were selected from the poorest class, many of them street vendors, and, indeed, "street arabs." They are chosen principally from the merits of their case and the probability of doing them good, and without any reference to influential recommendations. Drs. Oliver and Anderson bear testimony to the great improvement in the boys' physical condition after their sojourn at the camp; but the following facts are confirmatory on this point. Several batches of boys had been weighed on going to and returning from the camp, and in some cases as much as seven pounds increase in a fortnight had been indicated, or an average of half a pound a day. Mr. John Bardon, who initiated this scheme in Newcastle, and the other kindly friends who aided it, are to be congratulated upon its success, and the city also in having a society which renders its poor boys clean, happy, and healthy.

Death of George Douglass, M.D., of Gateshead.

I regret to note the death of Dr. George Douglass of Gateshead, which took place at his residence, after a short illness, on Saturday last. Dr. Douglass, who was in his fifty-third year, was M.D. St. And., M.R.C.S., and L.S.A. He was honorary medical officer to the Gateshead Dispensary, and formerly a medical officer of health for the borough, as well as justice of the peace; also surgeon to the 5th Volunteer Battalion of the Durham Light Infantry. The funeral took place to-day with military honours, and amidst many manifestations of respect and regret from his brother practitioners and fellow-townsmen. Dr. Douglass leaves a widow and family.

The Newall Telescope.

The magnificent instrument of the late Alderman Newall at Gateshead, which was long an object of interest to scientific men of all countries visiting the north of England, is to be removed to Cambridge. Many will regret this; but it must be allowed that the climate and atmosphere of Gateshead were not favourable to telescopic observation. On Mr. Newall's death the telescope was offered to the University of Cambridge, but the expense of removing and setting it up (estimated at £1400) prevented its acceptance at the time; this objection, however, has been removed by Mr. H. F. Newall, of Trinity, son of the donor, who has offered £300 towards the initial expense, and, further, his own services free as observer for five years, and also a contribution of £200 a year for five years towards the expense of the observatory. The Cambridge syndicate have recommended the acceptance of Mr. Newall's generous offer, as it appears there is a sum of £1000 which may be appropriated to observatory purposes from the Sheepshanks Fund.

The Ingham Infirmary, South Shields.

About a month ago I noted that it was necessary to close the Ingham Infirmary, South Shields, owing to illness amongst the resident staff, which was found to be due to drainage defects. These defects have now been remedied, as the whole of the old drains have been removed, new ones laid, and a thorough system of flushing and ventilation

established; so that it is intended to shortly reopen the hospital. The committee have decided to name the principal ward the "Williamson," in memory of the late Alderman John Williamson of South Shields, J.P., who died in Italy, to whose munificence the Ingham Infirmary to a great extent owes its erection, and who was ever its benefactor.

Newcastle-on-Tyne, May 6th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

Opening of the International Exhibition.

THIS Exhibition, which originated as an electrical one and has developed into a larger and more pretentious undertaking, was opened on Thursday, May 1st, by the Duke and Duchess of Edinburgh. The weather was "Queen's weather," and the city looked its loveliest. But one blot marred the day's proceedings: it appears that when their Royal Highnesses were at the Exhibition the servants of their suite went to the Forth Bridge, and during their absence money and jewels were stolen from their Royal Highnesses' apartments.

Commencement of the Summer Session.

So little was the excitement of the streets supposed to perturb the academic repose of the medical school that classes met on May 1st with exemplary and laudable exactness. There was, as might have been anticipated, a notable thinness on the benches. Thursday is an unfortunate day, under any circumstances, to open a session, but with special attractions and excitement outside the quadrangle it was almost ludicrous. Now, however, teachers and pupils have settled down to three months' steady work.

The Chair of Public Law.

The Queen, on the recommendation of the Secretary for Scotland, has appointed Sir Ludovic Grant, Bart., advocate, to succeed the late Professor Lorimer as Professor of Public Law. Sir Ludovic is a son of the late Sir Alexander Grant, who was principal of the University before Sir William Muir, the present principal. The new professor was educated at Fettes College, Edinburgh, and afterwards at Baliol College, Oxford, where he graduated in 1885. He attended law classes in the University of Edinburgh, and was called to the Scottish bar in 1887. Sir Ludovic's great grandfather, Professor Wilson, was Professor of Moral Philosophy; his grandfather, Professor Ferrier, was Professor of Constitutional History; while his father occupied the post referred to already. The present Baronet is thus the fourth generation serving the University in an important capacity.

Longmore Hospital for Incurables.

The management of this hospital is making an effort to raise funds to enable them to add a wing to the present building. The present accommodation is much too small for the continuous and increasing demand made for admission. Few objects are more deserving of public support than this, and it is to be hoped the management may have the means provided for such a very desirable object.

Presentation and Dinner to Dr. Woodhead.

There has been a movement on foot for some time to present Dr. Woodhead with a suitable and enduring token of the regard in which he is held by his professional brethren and others on the occasion of his removing from Edinburgh to London. The movement culminated on Tuesday with a dinner and a presentation of plate. Covers were laid for over ninety. The presentation consisted of a sterling silver dessert service, tea, coffee, and afternoon tea service, two silver candelabra, a silver salver, and kettle. On the salver was the plain inscription, "Presented to Dr. G. Sims Woodhead by a number of friends on the occasion of his departure from Edinburgh to London, 6th May, 1890." Professor Greenfield occupied the chair, and was supported by several University professors, and by Dr. Woodhead's father, one of the M.P.'s for Huddersfield. The Chairman, in proposing "Dr. Woodhead," referred to the position he held in Edinburgh—a position which was truly unique; how he was a part of everything that had any academic relation, that he was everywhere casting a genial, healthful influence on work, and that that influence would be much missed. His position as a pathologist and a scientist he would not dwell upon, as they were too well known. In a peroration of deep feeling and unusual pathos, the Chairman, in the name of the subscribers, made the presentation, and wished him God-speed in his new sphere of work. Dr. Woodhead replied with that modest manliness which has characterised all his relations with his fellows here, and few men will leave Edinburgh with more hearty good wishes than will accompany him.

Edinburgh, May 6th.

GLASGOW.

Clinical Teaching of Fevers in Glasgow.

THE vexed question of the clinical teaching of infectious diseases in Glasgow has received at least a temporary settlement. In the most generous and public-spirited way the corporation has recognised its responsibility in the matter, having, as local authority, undertaken the entire hospital care of fever cases; and being thus the sole possessors of "clinical material" for the teaching of such diseases, they now throw the wards of Belvidere Fever Hospital open, absolutely free of charge, to medical students from any of the schools, at the same time making it part of the regular duty of the medical staff to give instruction in fevers. The minute adopted by the Town Council on the recommendation of its Health Committee is to the following effect:—"(1) That as the hospital at Belvidere is now the only place in Glasgow where clinical teaching in infectious diseases can be given, and as it is of great public importance that such teaching should be continued there, they recommend that Dr. Allan, Physician-superintendent, should, with the assistance of the hospital medical staff, be required to give such instruction; Dr. Allan to report from time to time the number of students attending, and the progress made. (2) That the teaching to be afforded by the physician-superintendent and his assistants at the hospital should be given free to all medical students, and that any additional medical assistance required at the hospital should be provided by the magistrates and Council. (3) That without withdrawing the privilege granted by the magistrates and Council to the professors of medicine at the various medical schools to take their students to Belvidere for the purpose of giving clinical teaching, such professors be earnestly requested to urge upon their students to take advantage of the instruction to be afforded by Dr. Allan and his assistants, and that if such professors wish at any time to demonstrate any infectious disease in the hospital, permission to do so should be granted by the physician-superintendent or the Hospitals Committee." The Health Committee approved of the minute, and agreed to recommend that the clerk be directed to send an extract thereof to the General Medical Council of Great Britain and Ireland, with a representation that, in the opinion of the local authority, no qualification in medicine ought to be registered which is granted without evidence of clinical instruction in infectious diseases. There are still some palpable difficulties in the way of the full utilisation of this noble clinical field, such as the great distance (three or four miles) of the hospital from the principal medical schools. It should, nevertheless, not be impossible to hit on some arrangement whereby adequate clinical training in fevers may be obtainable. Few will be found who will dissent from the important recommendation made to the General Medical Council. If it is adopted, some plan, including perhaps a course of clinical lectures and a minimum record of attendances in the wards, might be agreed upon which would secure the object in view. The scheme of the Town Council, while it adds to the duties "required" of Dr. Allan and his staff in Belvidere, makes no provision for increasing his salary; this will doubtless come. Meanwhile, a proposal has been brought forward, but not yet adopted, that the salary of his senior assistant be raised to £150 per annum, in order to induce a competent man to remain in the office, and devote some time to the arrangement of teaching work. The students of the various schools in Glasgow have now an opportunity such as they have never before had of studying and recording, from daily personal observation, the details of the fluctuations and general progress of cases of fever; an infinitely better method than the weekly or monthly excursion in which, as one of a crowd grouped round a bed, the individual student caught occasional glimpses of a patient whom he saw probably once only. The students

will be wise if they take proper and full advantage of the unrivalled field now opened to them. The Town Council has certainly done its duty, and has thus given one more proof of the close interest with which the Scottish municipal bodies have always regarded matters of medical education.

Glasgow, May 5th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

DUBLIN.

Meath Hospital.

THE distribution of prizes awarded to the students at the close of the winter session took place last Monday. Sir George Porter, senior surgeon, eulogised the industry the successful candidates had displayed in the wards. Their faces, he said, were well known as being the most diligent of the class. He encouraged them to persevere in the career they had so auspiciously commenced, and held out to them hopes of ultimate success and professional advancement in the busy and useful life before them, of which their present awards were but a small instalment. The following prizes were awarded:—Senior medical prize, E. C. Brabazon; second prize, W. L. Ffrench. Senior surgical prize, Robert Perkins; second prize, Robert Lane-Joynt. Junior surgical prize, J. C. Perry; second prize, A. Gibbs. Mr. Ormsby referred to the death of Mr. Young, surgeon to the Monaghan Infirmary, who was the oldest practitioner in the country, and the Nestor of Irish surgery in the north of Ireland, who had passed away full of years and honours at the ripe age of eighty-six. He was apprenticed in Meath in 1822 to the late Professor William H. Porter.

Death of Dr. C. H. Leet.

Dr. Leet died on the 2nd inst. at his residence, Rathmines, a suburb of Dublin, at an advanced age. He was an M.D. and M.Ch. of the University of Glasgow, and for some years acted as representative for the Apothecaries' Hall of Ireland on the General Medical Council. He was also Secretary and Examiner and formerly Professor of Materia Medica and Medical Jurisprudence in the Apothecaries' Hall. He was an excellent example of the general practitioner, and at one time had a very considerable practice, being esteemed as a skilful member of the profession, an honourable gentleman, and a true friend.

Health of Dublin for March Quarter.

The births numbered 2521 and the deaths 3184, being an increase of deaths over births amounting to 663. Zymotic diseases caused 395 deaths, or an increase of 38 over the previous quarter. The zymotic disease which caused the greatest number of deaths was whooping-cough, there being 74 fatal cases. Enteric fever caused 58 deaths, or 20 in excess; typhus 4, a decrease of 24; measles 48, or 25 over the number; scarlatina 4; while no death from small-pox has been registered since March, 1888. During last quarter 61 deaths were ascribed to influenza; in 16 of the cases the disease was complicated with bronchitis, in 14 with pneumonia, in 5 with phthisis, and in 6 with cardiac disease.

The medical staff of the Mater Misericordiæ Hospital have contributed a sum of £50 towards the erection of a fever wing to that institution.

Dublin, May 6th.

BELFAST.

The Abuse of Hospitals.

On Saturday last a deputation appointed by the Ulster Medical Society, consisting of the President (Mr. McConnell), Dr. Kevin, Dr. Bigger, Dr. Alexander, and Mr. Osborne, waited on the Board of Management of the Belfast Royal Hospital, and pointed out what they regarded as grave abuses of the charity, especially in the extern department. Attention was drawn to the fact that the number of out-patients has been increasing at a very rapid rate, and instances were given of patients getting relief at the hospital who were quite fit to pay for medical attendance at home. It was suggested by the members of the deputation that more careful supervision should be exercised with the extern patients as to their means, and that there should be some wage limit. The chairman of the Board of Management, in replying, said that the Hospital Committee were quite alive to the fact that there were people who took an unfair advantage of the charity, and that they were most anxious to devise means to prevent this state of matters. The deputation, having thanked the Board of Management for the courteous way in which they had been received, then retired. It was decided to refer the whole matter to the House Committee and medical staff, who are to give in a report to the General Committee. On the same day the chairman of the Working-men's Committee said he had been deputed to request the Hospital Board to give medicines as well as advice to those working men who were subscribers to the charity. This, however, the committee regretted they could not agree to, owing to the large outlay it would involve.

At the first meeting of the new Belfast Dispensary Committee for the year, held on Monday last, a deputation from the Ulster Medical Society, consisting of Dr. Lewers, Dr. O'Neill, and Dr. Calwell, appeared before the members to point out the fact that there were abuses in the dispensary system. It was shown by Dr. Lewers that during the late epidemic of influenza measles the dispensary doctors had been very much overworked, and this had led to an investigation, when it was found that many who received dispensary aid did not deserve it. This subject was brought before the Ulster Medical Society, and that body proposed that a deputation should wait on the committee. They wished that a wage limit should be enforced. There was, it was said, such a limit, but it was not enforced. Cases were mentioned in which dispensary aid was given where the wages earned in one family were £2, in another £3 3s., in another £3 to £5, &c. The Society thought that the issuing of "lines" (under which the dispensary doctors were compelled to attend) should be restricted to the relieving officers, or to persons capable of making an investigation into the cases before granting the lines. Dr. O'Neill pointed out that he found dispensary medical officers attending cases in which he had himself been sent for. They had been able to pay him his fee, and, in addition, had the attendance of the dispensary medical officer. It was also pointed out that shopkeepers and others had the right to issue "lines" who had not time to investigate the condition of those who applied for them. The hon. secretary of the Dispensary Committee said it was generally admitted that there was an indiscriminate issuing of the "lines." There were 89 members of the committee in Belfast, all of whom could issue "lines," and forty-four wardens who had the same power. He thought the latter could be dispensed with, and that the members of the committee and the relieving officers would be sufficient to issue the "lines." Ultimately, a committee was appointed to consider the whole subject and to report to the Dispensary Committee. The deputation, having thanked the members for the courteous way they had been received, then withdrew.

The Belfast Hospital for Sick Children.

At the termination of the winter session, Mr. Fullerton gained the gold medal at an examination held on the Diseases of Infancy and Childhood, and Mr. Lyons was awarded a special prize. This hospital is now recognised by the Royal University of Ireland as an institution from which students can obtain the necessary certificates for attendance on the diseases of children. During the past winter thirty-four gentlemen attended the clinics.

At a meeting of the Board of Governors, held at the County Down Asylum, Downpatrick, on May 3rd, Mr. O'Flaherty was appointed resident medical superintendent of the asylum, in the room of Dr. Moore, appointed superintendent of the Donegal Lunatic Asylum.

The summer session began on May 1st. At the close of the winter session at the Royal Hospital, Mr. Fullerton was awarded the Coulter Exhibition.

Belfast, May 6th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Physiological Research and Clinical Observation.

AT a recent meeting of the Société de Thérapeutique, Dr. Huchard, in reply to a statement to the effect that iodide of sodium was a substance of no great therapeutic action, and possessed of an activity of a lower degree than iodide of potassium, said that such an assertion, based on simple physiological experiments, was not justified. It

should be known also that iodide of sodium does not act simply as an iodide, but also as sodium, its principal action being to determine a lowering of the arterial tension. Physiologists deceive themselves when they wish to apply their results to clinical medicine. They are still more deceived when they conclude from the animal to man, and from man in health to one who is sick. Dr. Huchard asks, Why should digitalis possess a remarkable diuretic action in the cardiac subject, whereas in the healthy subject it has no such effect? Why does the same drug—e.g., sulphate of quinine, administered to two fever patients, typhoid and erysipelatous, not act in the same manner? These are questions which physiology has not answered, but which clinical observation has revealed. Physiology is useful to the latter, but it should not be in subjection to it, and it cannot assume to countervail facts which result from study and a long observation of patients.

Iodide of Sodium.

At the same meeting, M. Dubousquet-Laborderie remarked that iodide of sodium is sold to druggists under the form of a crystallised salt, dried or in plates. It is with these three sorts of products that the medicated solutions of this substance are prepared. The author has shown that the activity of the salt is variable, and depends on the preparation of the iodide which is employed. Analyses have proved that the crystallised iodide of sodium contains the almost constant proportion of water of about 20 per cent., whilst the dried iodide contains from 7·5 to 18 per cent., and that this same salt in plates, *soi-disant* anhydrous, contains a proportion varying from 6 to 10 per cent. The author therefore advises that the crystallised iodide of sodium should be resorted to, this salt being richer in iodine than iodide of potassium, which contains a proportion of 84 per cent. of water.

Suicide by means of a Pin.

At the Société de Biologie, Dr. Magnan related a case of suicide by means of a pin. It was that of a melancholic patient, a young woman, in his ward at the Sainte Anne Asylum, who manifested a suicidal tendency at different times, and ultimately succeeded in compassing her death by plunging a pin into the chest under the left breast. This pin, which was of the ordinary size (three centimetres) pierced the sixth intercostal space, traversed the pericardium, and lacerated in different points the surface of the myocardium. Death took place from syncope. The arrest of the heart was due to escape of the blood, which filled three-fourths of the inferior portion of the pericardium, although no important vessel was wounded. Dr. Brown-Séquard observed that this fact proved that acupuncture of the heart, which was formerly practised, may be followed by fatal accidents. Dr. Polaillon remarked that death in such cases did not always, as in the case related by Dr. Magnan, result from compression of the heart by intra-pericardiac hæmorrhage, but by reflex action, by syncope. This is particularly the case when wounds of the heart are superficial, not penetrating into the intra-pericardiac cavities. It happens, however, that larger bodies—bullets, for instance,—have lodged in the thickness of the myocardium without giving rise to accidents of this nature.

The Risks of the Wet Nurse.

Dr. Fournier read a note at the last meeting of the Société Française de Dermatologie et de Syphiligraphie on the danger of suckling the infants of strangers. He thought that the risk to the nurse of being infected with syphilis was so great that the practice should be prohibited by law. In support of his thesis, he related the following case:—Whilst an interne at the Children's Hospital he had to examine an infant of a few months old, which was affected with athrepsia without any apparent specific manifestation whatever, and was consequently confided to a wet nurse. A few days later the infant succumbed to the athrepsia, and the necropsy revealed the existence of miliary gummata of the liver. A minute examination of the buccal cavity and of the integuments was immediately made. There was only a very slight crack on the lower lip, and two greyish spots, slightly squamous and scarcely perceptible, near the right knee. The nurse of the infant was immediately isolated and kept under close observation. About twenty days afterwards there appeared a fissured chancre on the nipple, which was soon followed by secondary manifestations.

Curious Case of Catalepsy.

The following curious case is related as having occurred at Dunkirk on April 14th, and as "showing the utility of catalepsy." A young girl of seventeen years was seized with a violent attack of epilepsy, and fell on the above date into a canal. A boatman immediately jumped into the water to save her, and brought her to shore after twenty minutes. The most singular circumstance connected with the accident is that when the young girl was taken out of the water she presented all the symptoms of catalepsy; and notwithstanding this long immersion, she was resuscitated, and nothing afterwards transpired to cause any anxiety.

The Late Professor Damaschino.

The friends and pupils of the late Professor Damaschino have opened a subscription to meet the cost of placing his bust in the Examination Hall of the Faculty of Medicine, for which purpose a committee has been formed, of which Dr. Henri Roger is the president.

Paris, May 6th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Surgical Congress.

IN the morning sitting of Saturday, April 12th, Glück supplemented his lecture of the previous afternoon by exhibiting cases, preparations, drawings, &c. His theme was the implantation of catgut, ivory, &c., between the ends of severed nerves, tendons, and bones in lieu of lost substance, and also the introduction of tampons of absorbent material (bundles of catgut) into operation wounds, in order to remove the blood and fill up the cavity. That such dressings, which must of course be absolutely aseptic, heal successfully is well known. But it was doubtful whether the supplemented organ would work satisfactorily; whether, for instance, a nerve, a lost part of which is replaced by an artificial implantation, would ever be able to perform its function. When the subject was brought forward at a previous congress Thiersch sarcastically remarked that all that would be necessary now for a diseased sphincter would be replacement by a dog's sphincter. It now seems, however, that these doubts were unfounded, for Glück exhibited a cock on which a nerve operation of the kind indicated above had been performed in the thigh, and in which he showed by electric stimulation of the nerves, which at once produced strong convulsive movements of the leg, that the conductibility of the nerve fibres was restored. Several patients who had suffered severe injuries to the tendons of the hand, and in whose hands bundles of catgut had been inserted between the ends of the tendons, showed that their hands had recovered their power of motion to a satisfactory extent.

The exhibition by Lauenstein and Helferich of bones with very complicated fractures; the demonstrations of a new method of laying bare the ankle-joint by Lauenstein; communications by Bessel-Hagen (Heidelberg) on deformities of bones and joints in cases of congenital hypertrophy of the muscles and of multiple exostoses; a demonstration by Rydygier of the value of the Wladimiroff-Mikuliez operation for the lengthening of a shortened leg; exhibition of preparations and drawings of hydro- and pyo-nephrosis, by Braun of Marburg and Rehn, and of a preparation of diffuse fibroma of the skull by Tillmanns; and communications on cyst-adenoma of the lacteal glands by Schimmelbusch (Berlin), followed. Rehn (Frankfort) described his operation for highly seated carcinomas of the rectum, and showed a preparation of congenital sarcoma of the dorsum of the foot. Riedel (Jena) explained preparations of osteo-chondritis and lipoma arborescens. Finally, Hahn (Berlin) exhibited a patient on whom gastro-enterostomy had been very successfully performed.

In the afternoon sitting, the last of the Congress, Hahn (Berlin) described his method in gastro-enterostomy. Riedel exhibited an improved Trendelenburg tampon cannula. Garré (Tubingen) spoke on tuberculosis of the tendon sheaths, and Krause (Halle) on the removal of a large tumour from the soft palate. Ritschl (Freiburg) showed

a new method of making elastic and infrangible models and preparations of diseased parts of the body of a mixture of gelatine and glycerine, in equal parts, which is poured warm into the somewhat heated stucco cast of the part. This mass, which is coloured with an addition of red oxide of zinc and cinnabar, hardens when cold, and is then painted.

During the Congress an exhibition of instruments, apparatus, bandages, &c., took place in the Kaiser pavilion of the clinic. Among the most interesting exhibits were the apparatus constructed by Hermann Rohrbeck (Berlin) for disinfection and sterilisation.

Berlin, April 29th.

Obituary.

BRIGADE-SURG. JAMES MACDONALD HOUSTON.

BRIGADE-SURGEON JAMES M. HOUSTON, whose death occurred on Sunday, April 20th, at 8, Coates-gardens, Edinburgh, had a long, useful, and honourable career in India, in the course of which he held several important medical appointments. Dr. Houston was the second son of the late Mr. James Houston, Tullochgriban, Strathspey, and was educated at Elgin and Aberdeen. He was an M.D. of King's College, Aberdeen, and a Member of the Royal College of Surgeons of England. He entered the Indian Medical Service in 1858, and was posted to the Madras Presidency. After a few years' service in the military department, he was appointed to the medical charge of the irrigation works on the Upper Godavery, where his duties were of a very arduous nature, and involved much exposure in a highly malarious climate. He was specially thanked by the Governor-General in Council for the valuable services he rendered while in this position. He never spared himself, with the result that after five or six years his health completely broke down, and he had to come home. On his return to India he was for some years civil surgeon at Tanjore, which station he left on being selected to hold the important appointment of Durbar Physician to his Highness the Maharajah of Travancore. He was not only physician to his Highness, but was also chief of the entire medical department of the State. The hospitals at the capital were directly under his charge, and those in the several districts were administered and inspected by him. His strict impartiality and high character secured for him the respect of his numerous subordinates, while his ever ready kindness to them, and to the small European community whose medical attendant he also was, made him greatly beloved. His purse was freely opened to those who needed help. He had a high conception of the work and position of a medical man, and had the honour of his profession always at heart. He retired from the service in 1888, after having held the Travancore appointment for about fifteen years. The Maharajah expressed by letter his high sense of Dr. Houston's services to the State during his long connexion with it, and referred to the increased confidence in European treatment which he had inspired, and to the superior training of the subordinates whom he left in the department.

THE COMMENDATORE F. SCALZI.

THE Roman University has of late years sustained many losses, particularly in its medical faculty. The last of these is, in some respects, the least readily repaired. As a physician and consultant Dr. Francesco Scalzi had his equals if not superiors; but in his union of sound and varied medical science with extensive and accurate knowledge of medical history his qualifications were, it is safe to say, unique.

He died, after a brief illness, on April 25th, at an advanced age indeed, but still young in spirit and energy. At the time of his death he was engaged in lecturing on Materia Medica at the Sapienza, in succession to Professor Francesco Ratti, whose long and meritorious career in connexion with the Roman School of Medicine we had recently occasion to record. Dr. Scalzi undertook the work of the chair at short notice, but the subject was familiar to him, and his long training as a teacher and expositor soon made itself felt by his young audience. During his short discharge of its duties he made his lectureship about the most popular in the University.

The work to which he gave up the most of his time and thought was the organising and administration of the great hospital of the Santo Spirito, of which he was for a long series of years the director. He found it in many ways inadequate to the claims upon it, both as an institution for the accommodation and tendance of the sick and as a field of clinical observation and instruction. In both respects he left it signally improved, having laid down the lines of future progress in all its departments, so as ere long to bring it up to the efficiency required by the metropolitan school of Italian medicine.

The rise and development of the healing art and of the sciences on which it is based was a favourite subject of his, and his skill in philology and criticism put him at an immense advantage over workers in the same field, who were content to take their authorities at secondhand. It may, in truth, be claimed for him that since Puccinotti and De Renzi Italy has had no superior scholar in medical history—none more worthy to take rank with Daremberg in France, or Haeser and Puschmann in Germany. His patriotism—bordering occasionally on Chauvinism—led him to assert, with almost extravagant insistance, the claims of his countrymen to priority in medical discovery, anatomical, physiological, or clinical. Our readers will remember the controversy, conducted on both sides with commendable fairness and courtesy, between him and Dr. George Johnson, as to whether Cesalpino did or did not anticipate our own Harvey in the discovery of the circulation. If he did not vindicate the great Tuscan's claim with success, Dr. Scalzi at least demonstrated the remarkable approximation effected by him; while, incidentally, he contributed to establish the truth that, of all memorable discoveries in biological science, that of the circulation of the blood in man was the most gradual. Dr. Scalzi also interested himself actively and effectively in public hygiene, and his map of the comparative presence or absence of disease in the various quarters of Rome proved a valuable aid and incentive to sanitary reform. He was a constant participator in the weekly discussions of the Accademia Medica di Roma, which, out of respect for his scientific and professional standing, suspended its meeting on April 27th. All the medical congresses throughout Italy, moreover, numbered him amongst their most welcome visitants, for his many accomplishments, his authority in controverted matters, and his kindly and even humorous intervention. On the day of his death the Roman University closed its gates to mark its sense of the loss it had sustained; and on Sunday, April 27th, his mortal remains were accompanied from his house in the Piazza Pia to the Campo Verano by a long train of mourners, including the Senatus Academicus of Rome, all the students of the several faculties, and the leading citizens. Among the tributes to his memory pronounced, in continental fashion, over his grave, none was more effective than that which associated his life and work with the illustrious Baglivi, the Roman physician of the eighteenth century, whose high professional accomplishments and honourable career Francesco Scalzi made it his ambition to imitate—certainly not in vain.

W. MATTERSON, M.D. ST. AND., F.R.C.P.LOND.

DR. W. MATTERSON was born at York, on May 8th, 1815. He was the eldest son of the late W. Matterson, M.R.C.S., of York, and was the representative of an old Yorkshire family. He was educated at St. Peter's School, York, under the Rev. Stephen Creyke. He entered, after leaving school, as a student at St. Bartholomew's Hospital, and was a contemporary and friend of Sir J. Paget. In 1836 he gained the chief prizes in Materia Medica and Chemistry, and became M.R.C.S. and L.S.A. in 1837. He succeeded to his father's practice as a surgeon. In 1862 he took his M.D. degree at St. Andrews, and practised as a physician, taking the M.R.C.P. of London in 1867. In 1875 he was elected a Fellow of his College. He was successively surgeon and physician to the York Dispensary, and at the time of his death was its senior governor. For many years he was physician to the County Hospital, and was hon. consulting physician to that institution at the time of his death. He was physician to the York Lunatic Asylum, and hon. physician to the Yorkshire School for the Blind. He was, also, member of the Council of the Yorkshire Philosophical Society, and hon. curator of botany at the time of his death. He was the oldest member of the York Medical Society, and had filled the office of president for several years. He was also J.P. for the city. Dr. Matterson was devoted to good works, and there was hardly a charitable or benevolent institution in and about York that he was not

connected with. His funeral took place on April 28th, the medical profession and most of the public bodies in York being represented on the occasion.

ROYAL COLLEGE OF PHYSICIANS.

AN extraordinary Comitia of the College of Physicians was held on the 8th inst., the President, Sir Andrew Clark, Bart., in the chair.

The President informed the meeting that on the previous day the delegates of the two Royal Colleges had been received by the Senate of the University of London with reference to the suggestions made by the Colleges, and a reply will in due course be returned.

The nine newly elected Fellows were admitted.

An invitation from the Hon. Secs. of the tenth International Medical Congress (Berlin) was read, and Drs. Hermann Weber, Ord, and Payne were nominated to represent the College at the meeting.

The revised report of the Pharmacopœia Committee was received and adopted, and the thanks of the College were conveyed to the Committee for their labours.

A report from the Committee of Management referring to certain proposals by the Examiners in Chemistry and Chemical Physics, and containing a new synopsis to be used in the examinations from and after the 1st of May, 1891, was received and adopted.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council held on Thursday, May 8th, the minutes of the quarterly meeting of April 10th were read and confirmed. Mr. W. G. Spencer was introduced, and the President handed him the Jacksonian Prize for the past year, together with the instrument declaratory of the award thereof.

In reference to the resolution adopted by the Council on the 10th ult.,—that the whole question of the instruction of students in ophthalmic surgery and of the manner by which their knowledge in this subject should be either tested, certified, or otherwise approved, be referred to the Court of Examiners to consider and report thereon to the Council,—it was resolved, on the unanimous recommendation of the Court of Examiners: 1. That the present arrangements for testing the knowledge of candidates in Ophthalmic Surgery for the diploma of Member of the College are sufficient. 2. That the fact that candidates are liable to be tested in regard to the use of apparatus employed in the various special Surgical departments has more effect in leading them to acquire such knowledge than any enforcement of attendance in those special departments.

A report dated the 17th March, 1890, from the Committee of Management was read, giving a revised synopsis of subjects required for the first examination on Chemistry and Chemical Physics. The report was approved and adopted.

In the report of the Committee of Management, which was read, approved, and adopted, it was recommended that a passage be constructed on the ground and second floors of the Examination Hall from the new passenger lift to the east staircase in connexion with the rooms in the new building, at a cost of £35 10s. for each floor, so that there may be direct access to those rooms from the lift, and that other necessary work be carried out.

Permission was given to the President to hold a conversazione at the College during the summer. Also the usual resolutions with regard to the annual meeting of Fellows of the College for the election of members of the Council be held at the College on Thursday, July 3rd next, at 2 o'clock P.M. precisely were passed.

The retiring members of Council are Messrs. Marshall, Power, and Croft.

A letter of the 25th ult. was read from Mr. R. H. Nicholson, a member of the College, in reference to the status of army medical officers. It was resolved that the President and Vice-President be requested, in concert with Sir W. Mac Cormac and Mr. Macnamara, to investigate the recommendations of Lord Camperdown's Committee on the Status of Army Medical Officers, and to report thereon to the next meeting of the Council.

A letter from Dr. V. D. Harris was read, in which an application was made, on behalf of himself and his fellow teachers of Physiology at St. Bartholomew's Hospital, for permission to attend the primary Fellowship Examination, and the Council agreed that the Chairman of the Board of Examiners in Anatomy and Physiology for the Fellowship be authorised to admit teachers of anatomy and physiology of the several medical schools to visit the examination, on a personal application being made to him.

Mr. Macnamara, in pursuance of his notice on the 10th ult., moved, and Mr. Marshall seconded: "That it be referred to the President and Vice-Presidents to consider and report to the Council whether any, and, if so, what alterations should be made in the payments to professors and lecturers."

A letter was read from the officials of the Berlin Congress, inviting representatives of the College to attend that Congress, and it was resolved that the President, or any other member of the Council who may desire to attend, should be appointed representatives of the College.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examinations, were, at a meeting of the Council on the 8th inst., admitted Members of the College:—

Ackland, Robert, L.R.C.P.Lond., Duke-street, St. James's.
Adkins, Albert James, L.R.C.P.Lond., Greatworth, Banbury.
Allford, Henry George Lynwood, L.R.C.P.Lond., Richmond.
Andrew, Francis William, L.R.C.P.Lond., Hendon.
Baker, Herbert Stainer, L.R.C.P.Lond., Stoke Newington.
Beadles, Cecil Fowler, L.R.C.P.Lond., North Finchley.
Bernau, Henry Ferdinand, L.R.C.P.Lond., Tulse-hill.
Beville, Frederick Wells, L.R.C.P.Lond., Kingston-on-Thames.
Boulton, Arthur, L.R.C.P.Lond., Horncastle, Lincolnshire.
Bramwell, Herbert, M.B.Edin., Beverley-terrace, Cullercoats.
Brown, Alfred, L.K.Q.C.P.I., Earl's-court-road.
Buckley, C. Herbert, L.R.C.P.Lond., Rochdale-road, Manchester.
Buncombe, W. D., L.R.C.P.Lond., City of London Infirmary, Bow-road.
Butler, Charles, L.R.C.P.Lond., Uxbridge-road, Surbiton.
Cargill, Lionel Vernon, L.R.C.P.Lond., Gloucester-road.
Carpenter, W. Stanley, L.R.C.P.Lond., Portsdown-road, Maida Vale.
Carter, W. Robson, L.R.C.P.Lond., Lambeth-palace-road.
Christal, Thomas Forster, L.R.C.P.Lond., Park-hill, Richmond.
Clayton, John H., L.R.C.P.Lond., Calthorpe-road, Birmingham.
Clowes, John Palphreyman, L.R.C.P.Lond., Finsbury Barracks.
Coleman, Percy, L.R.C.P.Lond., Trevena, Dacre-road.
Collins, Ethelbert, L.R.C.P.Lond., Hawthorn Lodge, Yapton.
Cooke, Charles Michael, L.R.C.P.Lond., Hill's View, Barnstaple
Cooper, Ludford, L.R.C.P.Lond., University College Hospital.
Craig, William Wallace, L.R.C.P.Lond., Crescent, Shrewsbury.
Dauber, John Henry, L.R.C.P.Lond., Coed Helen, Carnarvon.
Dickinson, George F., L.R.C.P.Lond., Benhill Wood-road, Sutton.
Dudley, George James, L.R.C.P.Lond., Longnore House, Dudley.
Earle, Hubert Malins, L.R.C.P.Lond., Middlesex Hospital College.
Elliman, Arthur Charles, L.R.C.P.Lond., High-street, Tring.
Farmer, Gabriel William S., L.R.C.P.Lond., New-street, Stepney.
Fawcett, John, L.R.C.P.Lond., Fernleigh, Westgate-on-Sea.
Fincham, William Sydney, L.R.C.P.Lond., Lena-gardens, W.
Fisher, Thomas Escolme H., L.R.C.P.Lond., Almeric-road, S.W.
Foster-Foster, Franz F., L.R.C.P.Lond., West Parade, Norwich.
Fowler, Frank, L.R.C.P.Lond., Copthall, Twickenham.
France, Edmund Percival, L.R.C.P.Lond., Children's Hospital, E.
Gann, Thomas Wm. F., L.R.C.P.Lond., Claremont, Hayling, Hants.
Gilpin, Robert H., L.R.C.P.Lond., Duke-street, Portland-place.
Green, James Howard, L.R.C.P.Lond., Shaw Heath, Stockport.
Grey, Thomas C., L.R.C.P.Lond., Abbotsford, Weston-super-Mare.
Hall, Frederick William, L.R.C.P.Lond., Bonfield-road, Lewisham.
Handfield-Jones, Charles R., L.R.C.P.Lond., Montagne-square, W.
Harrington, Andrew J., M.D.Toronto, Hillmarton-road, Holloway.
Harris, Frederick S., L.R.C.P.Lond., Avenue House, Southgate.
Harrison, Arthur W., L.R.C.P.Lond, Grange Park, Thornton Heath.
Hayman, William S., L.R.C.P.Lond., Fitzwilliam-road, Clapham.
Henstock, John Lea, L.R.C.P.Lond., Granville-square, W.C.
Hodgson, Victor J., L.R.C.P.Lond., Elms-road, Clapham-common.
Hopkins, George H., L.R.C.P.Lond., Cantlowes-road, N.W.
Howell, Arthur H., L.R.C.P.Lond., Hanley-road, Crouch-hill.
Jaffrey, Francis, L.R.C.P.Lond., Queen's-ride, Barnes-common.
James, Walter Evelyn, L.R.C.P.Lond., Abucam House, Abucam.
Kerr, William James, L.R.C.P.Lond., Drake-street, Rochdale.
Kershaw, Herbert W., L.R.C.P.Lond., Annaberg, St. Albans, Herts.
Lancashire, George H., L.R.C.P.Lond., York-place, Manchester.
Legg, Cyrus, L.R.C.P.Lond., Eastwell, Elm-road, Clapham-common.
Liddle, Percy Herbert, M.B.Melb., Torrington-square.
Lowsley, Lionel D., L.R.C.P.Lond., Manor House, Newbury, Berks.
McKeown, P. W. H., M.D.Toronto, Grand Trunk Railway, Toronto.
Marshall, W. E., L.R.C.P.Lond., Abbey-gardens, St. John's-wood.
Martley, Francis Charles, L.R.C.P.Lond., Manor-place, W.
Mason, Frank, L.R.C.P.Lond., Jordan-villa, Barnsley, Yorks.
Matthews, Sidney Philip, L.R.C.P.Lond., Montem-road, Forest-hill.
Maund, John H., L.R.C.P.Lond., King Henry's-road, Hampstead.
Morgan, D. N., L.R.C.P.Lond., Cae Glas, Pontypridd, South Wales.
Morris, Henry Cecil Low, L.R.C.P.Lond., Howden, East Yorkshire.
Muir, Arthur, L.R.C.P.Lond., Bute-road, Wallington, Surrey.

Murrell, G. F., L.R.C.P.Lond., The Elms, Uxbridge-road, Ealing.
Nix, H. W., L.R.C.P.Lond., Cornwall-street, St. George's-square.
Odell, Robert, L.R.C.P.Lond., Jermyn-grove, Liverpool.
Openshaw, Edward Hyde, L.R.C.P.Lond., Berkeley-square, Bristol.
Peachey, Allan Thomas, L.S.A., Albany-street, N.W.
Pearson, Harry Beason Allen, L.R.C.P.Lond., Battersea-park-road.
Pearson, Reginald S., L.R.C.P.Lond., Heywood-street, Manchester.
Powell, Herbert Andrews, L.R.C.P.Lond., Inverness-terrace, W.
Pridmore, Eric Leonard N., L.R.C.P.Lond., Brooklyn, Coventry.
Radford, William John, L.R.C.P.Lond., Castle-road, Southsea.
Richards, Albert Francis, L.R.C.P.Lond., Castle House, Carmarthen.
Roberts, Francis Henry, L.R.C.P.Lond., Hanbury-road, Bargood.
Roberts, George Edwin, L.R.C.P.Lond., Huntley-street.
Robinson, Oliver Long, L.R.C.P.Lond., Upper Leeson-street, Dublin.
Robson-Scott, Chas. G., L.R.C.P.Lond., Jedburgh, Roxburghshire.
Rouse, Eusebius Rouse, L.R.C.P.Lond., Woodberry Down, Finsbury-park.
Rowse, Ed. Leopold, L.R.C.P.Lond., Marmora-road, Honor Oak.
Routh, Randolph Henry Felix, L.R.C.P.Lond., Montague-square, W.
Rugg, Wm. John, L.R.C.P.Lond., Stockwell Villa, Clapham-road.
Sandifer, H. Stephen, L.R.C.P.Lond., St. Mary's-road, Canonbury.
Sarjant, Frank Percy, L.R.C.P.Lond., New Cross-road.
Shannon, J. Webster, L.R.C.P.Lond., Bidston-road, Oxton, near Birkenhead.
Shaw, Cyril Walrond, L.R.C.P.Lond., Barnpack-terrace, Teignmouth.
Smith, Andrew Hallidie, L.R.C.P.Lond., Gloucester-street.
Smith, Sidney Browning, L.R.C.P.Lond., Trinity-square.
Smith, Wm. Stephen Montgomery, L.R.C.P.Lond., New-street, St. Thomas's-street.
Snook, Samuel Penny, L.R.C.P.Lond., Buxton-road, Weymouth.
South, Richard Ed. E., L.R.C.P.Lond., New Romney Rectory, Kent.
Statter, H. Bellamy, L.R.C.P.Lond., Old Hall, Snapethorpe, near Wakefield.
Stephenson, Owen Taunton, L.R.C.P.Lond., Woolston, Southampton.
Streeten, Ernest R., L.R.C.P.Lond., Ealing-green, Ealing.
Strouts, Sidney Robert, L.R.C.P.Lond., Burton-road.
Sykes, Arthur, L.R.C.P.Lond., Gledholt Bank, Huddersfield.
Symes, William Legge, L.S.A., West Allington, Bridport.
Templeton, P., L.R.C.P.Lond., Devonshire-street, Portland-place.
Thomas, John L., L.R.C.P.Lond., Shardeloes-road, New Cross.
Thomason, Richard Henry, L.R.C.P.Lond., Percy-circus, W.C.
Townsend, Arthur A. D., L.R.C.P.Lond., Leam-terrace, Leamington.
Trentfield, George Henry, L.R.C.P.Lond., Chipping Sodbury.
Wake, Charles H., L.R.C.P.Lond., Dartmouth-park-hill, N.W.
Wale, M. E. H., L.R.C.P.Edin., Priory-road, Bedford Park, Chiswick.
Walker, Henry, L.R.C.P.Lond., Clifton House, Scarborough.
Waring, Holbert J., L.R.C.P.Lond., Mecklenburg-street.
Weber, Frederic Parkes, L.R.C.P.Lond., Grosvenor-street.
Whyte, Herbert W., L.R.C.P.Lond., Hervey-road, Blackheath.
Williams, Robert J., L.R.C.P.Lond., Wired-place, Bedford-square.
Wingate, William W., L.R.C.P.Lond., Guy's Hospital.
Wood, John A., L.R.C.P.Lond., Elmside, Marlboro'-hill, Harrow.
Yearsley, Percival M., L.R.C.P.Lond., York-street, W.

CONJOINT SCHEME OF THE COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND.—The following have passed their final examination, and have been admitted Licentiates of both Colleges:—

M. Callanan, H. Corr, R. H. Dreaper, Anthony Joseph Kerin, J. J. Kinsella, A. Murphy, E. F. MacCarthy, A. F. Penny, C. V. Vereker, and R. S Wayland.

By an official error the name of Mr. J. Thornhill was placed in last week's issue among the successful candidates for the third professional examination. Mr. Thornhill did not go up for examination.

ROYAL INSTITUTION OF GREAT BRITAIN.—Harry Baldwin, Esq., M.R.C.S., has been elected a Member of the Institution.

EPSOM COLLEGE.—The annual general meeting of the Governors of the Royal Medical Benevolent College, Epsom, will be held on May 22nd.

UNIVERSITY OF CAMBRIDGE.—Dr. C. H. Ralfe of Gonville and Caius College has been appointed an additional examiner in medicine to assist the Regius Professor of Physic; and Mr. H. W. Page, M.C., F.R.C.S., of Christ's College, has been electedto assist the Professor of Surgery.

MINERAL WATER HOSPITAL, BATH.—The report for 1889 shows that during the year 1113 patients were admitted. The committee specially acknowledge the handsome award received from the London Hospital Saturday Fund Committee in consideration of the large number of patients admitted annually from the metropolis. The financial statement showed a balance in hand of £530.

LEPERS IN INDIA.—A meeting of the friends and supporters of the Mission to Lepers in India was held at Exeter Hall on the 2nd inst. Mr. F. A. Denny presided. The secretary stated that official statistics estimated the total number of lepers at 135,000; unofficial statistics, however, were far in excess of that number, but as they were not collected by medical men the correct total could not be ascertained. The Society's career had been encouragingly prosperous. A resolution was adopted recommending that some provision should be made for the children of lepers not tainted with the disease.

LONDON HOSPITAL.—The Duke of Cambridge (president of this hospital) has consented to lay the foundation stone of the new buildings on Tuesday, the 20th inst.

THE BECKETT HOSPITAL, BARNSLEY.—Mr. C. Harvey, J.P., of Park House, Ardsley, has given £1000 for the purpose of establishing a convalescent fund in connexion with this hospital.

THE DERBY CONTAGIOUS DISEASES HOSPITAL.—This new hospital was formally opened on the 1st inst. It has been erected by the Corporation of Derby, and is situated on the outskirts of the borough.

THE COTTAGE HOSPITAL, POOLE.—It is stated that in consequence of the very inadequate accommodation at the West-street Cottage Hospital to meet the requirements of the institution, Lady Wimborne has purchased Poole House, situated at Hunger Hill, with the intention of adapting it for a hospital. The premises are large and commodious, and may be rendered well suited for the purpose.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.—At a recent meeting of the Council, held at their rooms, 3, Bolt-court, Fleet-street, the new Lunacy Act, which came into operation on May 1st, was discussed, and it was resolved—"That in the opinion of this Council a minimum fee of 10*s.* 6*d.* should be paid by the guardians to the medical practitioner who, not being an officer of the workhouse, examines a person for the purpose of a certificate under this section."

HYDROPHOBIA IN PARIS.—The Paris Director of the Sanitary Service, Dr. Dujardin-Beaumetz, in issuing his report for 1889, states that there had been six cases of death from hydrophobia, three having been treated at the Pasteur Institute, and three which had not. Pasteur had treated 236 persons from the Department of the Seine. The mortality in 1889 among Pasteur's patients is given as 1·27 per cent. Dr. Dujardin-Beaumetz urges the muzzling of dogs and the destruction of all stray dogs found in the streets of Paris.

DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.—This institution maintains its position of usefulness. The medical report for the past year shows that 2476 patients had been under treatment. Of these, 2196 were cases of rheumatic and gouty character, 354 were complicated with heart disease, 62 were classed under diseases of the nervous system, and 28 were phthisical. There were 28 cases of accident, which were serious cases of injury, such as concussion, fractures, and extensive burns.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—The next quarterly meeting of the Association will take place on Thursday, May 15th, 1890, at Bethlem Hospital, London, at 4 P.M. After the transaction of routine business Dr. C. Theodore Ewart will read a paper entitled "Cycling for the Insane," and Dr. Strahan will introduce the subject of the Propagation of Insanity and Allied Neuroses, and will exhibit a model of a bath. Mr. Percy Smith and Dr. Hyslop will show and describe pathological specimens. Members will dine together as usual after the meeting, at the Holborn Restaurant, at 7 P.M.

THE NATIONAL HEALTH SOCIETY.—The annual distribution of prizes under the auspices of this Society took place at Grosvenor House on the 6th inst., the Duke of Westminster, President, in the chair. The Duchess of Westminster distributed eight medals and about one hundred certificates to the successful candidates. Several speeches were delivered, and Mr. Fred. Treves, F.R.C.S., took occasion to point out that the National Health Society had resolved to grant diplomas of proficiency in the art and science of physical education to such teachers of gymnastics, calisthenics, and physical exercises as have fulfilled the necessary curriculum and have passed the required examinations. The Society hopes by the institution of this diploma to encourage the development of physical education in this country, to render such training precise, effectual, and scientific, to protect the public on the one hand from incompetent teachers, and to establish on the other the position of such instructors as are fully qualified. A vote of thanks, moved by Sir Joseph Fayrer, to the Duchess for her kindness in presenting the certificates and medals, and to the Duke for presiding on that occasion, brought the proceedings to a close.

PRESENTATION.—The members of the ambulance class conducted at Uddingston, near Glasgow, by Dr. Crawford was examined by Dr. Shaw of Govan. The class presented Dr. Crawford with a case of surgical instruments as a mark of their appreciation of his teaching.

NEW SYSTEM OF SEWERAGE IN NAPLES. — The *Revista Internazionale de Hygiene* gives an account of the new system of sewerage in Naples. The total length of the sewers is 76,000 metres, of which about half, or 35,700 metres, is quite new. The fall of the principal sewers does not exceed 5 in 1000.

NATIONAL PHYSICAL RECREATION SOCIETY.—This Society (the object of which is to promote a healthy physical condition among the working classes of both sexes) is organising a Gymnastic Fête, to be held at the Agricultural Hall for six nights, commencing on Whit Monday, the 26th inst. The programme is of a varied and attractive character.

EPIDEMIC AMONGST HORSES AT COWBRIDGE. — The epidemic amongst horses, which has been prevalent in the northern part of the county of Glamorgan, has now made its appearance in the neighbourhood of Cowbridge. The disease is locally supposed to be influenza, and several fatal cases have already occurred. It is also stated that swine fever exists in the neighbourhood.

AT a meeting of the Bristol Town Council on Friday, the 25th ult., it was resolved to allow Dr. Thompson, for many years the medical superintendent of Fishponds Lunatic Asylum, an annuity of £600. Dr. Thompson has lately broken down in health. The maximum superannuation has certainly been earned, for, as the high sheriff put it, Dr. Thompson has undoubtedly sacrificed his life in the interests of the institution over which he has presided so long.

SUICIDE AT BETHLEM HOSPITAL. — An inquest was held on Tuesday, at this hospital, on the body of Edward Woodhead, aged sixty, and of suicidal tendencies, who committed suicide on Sunday last by cutting his throat with a razor, wrested in a scuffle from an attendant on his leaving the bath-room, where he had just previously shaved himself. The evidence adduced showed that there were no printed regulations respecting the attendants shaving. Since this occurrence the attendants have been ordered to shave in their own rooms.

THE AUSTRALIAN RABBIT PEST.—The final report has been issued of the Royal Commissioners in New South Wales on the result of the schemes received in response to their proclamation of August, 1887, offering a reward of £25,000 for any method for the effectual extermination of rabbits. The schemes were very numerous, and suggested various methods. The Commissioners advise that when necessary the State should advance to lessees of Crown lands and occupiers of land the cost of netting fencing on certain conditions; but they have found no evidence to warrant the belief that any known method can exterminate rabbits.

QUEEN'S COLLEGE, BELFAST.—The following is the list of prizemen at the recent General Class Examinations in Medicine:—*Practical Chemistry:* Senior Division: James Munce and J. O. Caldwell. Junior Division: D. W. Moore and W. A. W. Moore. *Zoology:* Senior: James Munce (honourable mention). Junior: J. H. Whitaker, R. A. Cunningham, James Cunningham, Walter Herron, and J. R. Thompson. *Anatomy and Physiology:* Third year: K. B. Barnett. Second year: W. B. Robertson, V. G. L. Fielden, and R. M. Beatty, B.A. First year: W. J. Woods, Wm. Hanna, and W. D. Donnan and J. C. Rowan (equal). *Practical Anatomy:* Third year: Douglas Maconachie, G. W. Farley, W. B. Robertson, Edward Montgomery, and John Rusk, B.A., and T. H. Scott, for dissecting (equal). Second year: W. J. Woods, J. C. Rowan, and W. D. Donnan. First year: R. A. Parkhill and Hugh Fisher. *Medicine:* Second year: John Scott. First year: James Younge. *Surgery:* Senior: R. M. Fraser, B.A., and J. M'C. Brown and Andrew Fullerton (equal). Junior: R. M. Beatty, B.A., and J. A. Hislop (non-mat.). *Materia Medica:* V. G. L. Fielden, A. P. Stimson (non-mat.), and Alexander Jamison, M.A. *Midwifery:* John Scott and James Morrow, B.A. (equal), J. N. Matthews, R. M. Fraser, B.A., and F. H. Scott

MEDICAL NOTES IN PARLIAMENT.

Sheffield Water-supply.

IN the House of Commons, on Monday, May 5th, Dr. Farquharson asked the President of the Local Government Board whether the attention of the Board had been directed to the extensive prevalence of lead poisoning in Sheffield and the surrounding districts due to the drinking water, and affecting about 1000 persons, as reported in the medical journals of April 26th, and whether he proposed to order an inquiry by the Board into the circumstances, and the best means of remedying them.—Mr. Ritchie said: I have received a communication from the Town Clerk of Sheffield, from which it appears that a committee, which included Professor Dewar, Dr. Bristowe, and Mr. Hawksley, was appointed by the Town Council to consider the subject, and that the remedy recommended by that committee has been adopted by the Town Council. The results as regards the improvement of the water-supply are stated to have been decidedly beneficial, and the Town Council hope that a complete remedy will be provided.

The Dog Muzzling Order.

In answer to questions from Mr. Lees, Mr. H. Knatchbull-Hugessen, and Mr. W. Ainslie, Dr. Tanner, and Dr. Farquharson, Mr. Chaplin said: I am glad to say, with regard to rabies, that in every county which has been placed under the regulations, and in the country as a whole, there has been a marked diminution in the number of outbreaks since the passing of the order. For the first quarter of the present year they have been reduced to 39, and for the month of April there have only been seven cases throughout England, as compared with 11 for March, 14 for February, and 14 for January of the present year. In the metropolis and the West Riding, although there has been a large diminution, cases are still of constant occurrence, and there have also been comparatively recent outbreaks in Hampshire and West Sussex, in which latter county a muzzling order has been imposed by the local authority. If the reports continue to be as favourable in the case of the home counties as they have been of late I shall hope to be able to modify the order, if it is not suspended at no distant time. Since the order has been enforced, of the rabid dogs seized in public places nine were properly and securely muzzled, and were thus prevented from doing mischief.

Metropolitan Health Bills.

In answer to Mr. J. Rowlands, Mr. W. H. Smith said the Government hoped to be able to introduce the Bills dealing with the consolidation and amendment of the laws with respect to public health in the metropolis and to the dwellings of the working classes shortly before Whitsuntide.

The Movement of Cattle.

Dr. Farquharson asked the President of the Board of Agriculture who, under the Pleuro-pneumonia Bill, will be responsible for making and issuing regulations for the movement of cattle throughout the kingdom.—Mr. Chaplin said the ultimate responsibility for making and issuing regulations for the movement of cattle will rest with the Board of Agriculture, as it formerly did with the Privy Council before the Board was established.

Unvaccinated Pupil Teachers at Leicester.

Mr. Picton asked the Vice-President of the Committee of Council on Education whether he would reconsider the practical difficulty in which the School Board for Leicester was placed by the impossibility of securing a sufficient number of candidates for the position of pupil teacher who could produce a certificate of vaccination.—Sir W. Hart-Dyke said: I am not aware that there is any difficulty in procuring a certificate of vaccination at Leicester, if the proper medical authority is applied to, and the hon. member must see that it would be highly inexpedient for the department to relax a rule of great importance to the health of the children in elementary schools, because of the unfortunate attitude towards compulsory vaccination taken up by the inhabitants of Leicester.

THE INQUIRY INTO METROPOLITAN HOSPITALS.

On Monday, before this Committee, Colonel Montefiore, representing the Charity Organisation Society, gave information as to the number and character of the free and provident medical institutions in London. Foremost in the category of defects which he alleged against their management was the indiscriminate administration of out-door relief, upon which many other subsidiary evils followed as a necessary corollary. The enormous growth in this out-door medical relief was never contemplated when hospitals were established, and the immediate effect upon the patients themselves was that each one only had the advantage of the doctor's attention for one minute, although they seemed to prefer this rather than resort to the parish doctor. In districts where out-patients were largely treated, it was impossible for provident dispensaries to exist, and where these institutions did flourish they pressed very hard on the medical practitioners amongst the poor. One doctor in Bethnal-green was really known to be giving three visits and three bottles of medicine for one shilling. So long as hospitals were continually competing with each other, and basing their appeals for funds on the deficit caused by the number of their out-patients, witness could see no prospect of better district organisation. The manner in which hospital accounts were prepared was severely criticised. Witness thought it a distinct misfortune that medical schools were not attached to the great London infirmaries, under proper restrictions. Indeed, such a scheme was indispensable to a comprehensive reform of metropolitan hospitals. As a primary remedy to some of the defects of the present system, Colonel Montefiore suggested a scheme of registration which would give hospitals a status, and bring them under the control of a central council. As an indication of what he intended, the witness referred to the charity registration clauses of the Local Government Act of 1888, but he pointed out to the committee, as a singular fact, that those clauses had broken down, and had become quite inoperative.—Lord Thring mentioned that there was already complete machinery for the registration of charities in their corporate capacity, but a good deal would have to be said on any compulsory plan.

On Thursday, the 8th inst., Dr. Steele, medical superintendent of Guy's Hospital, previously medical superintendent of Glasgow Royal Infirmary, gave evidence on the various departments and organisation

as they exist in Guy's Hospital, and said that during the forty-one years he had been connected with hospitals the system had improved very much. In reply to a question, he expressed his opinion that doubtless the system of having lying-in women visited at their homes took away the work of many small practitioners in the neighbourhood of the hospitals. He thought that in the case of these women being unable to obtain assistance from the hospitals or from a midwife they must apply to the parish doctor, although he thought the small practitioners in the neighbourhood would probably be very glad to attend such cases for the fee of half a guinea. In reply to Lord Sandhurst, he considered that in the large clinical wards there was a disposition among medical officers to select cases for treatment which were specially instructive to students; but he pointed out that those were the cases which required attendance most. In reply to Lord Kimberley, as to whether the attendance given by the medical students of Guy's Hospital to lying-in women of the neighbourhood did not tend to encourage pauperism among those people, he pointed out that the lying-in institution existed in the first instance for the benefit of the pupils, and did not know any other way of teaching them. He admitted, however, that all medical charities had a tendency to lead persons who were able to pay to seek charitable assistance instead of doing their duty to their own families. But he rested the defence of the practice upon the necessity for obtaining proper medical education. In reference to the collection of money in the hospital, he said there was a little box in every ward, and of late years the amount found in each was about £30 a year. In the out-patient department similar boxes were placed, and although some fifty or sixty thousand people passed through these rooms annually, the amount was scarcely above five shillings in a year. Speaking of special hospitals and dispensaries, he said the majority of them were established for the purpose of making the fortune of some medical man, perhaps not in connexion with any hospital. The sanitation of hospitals required looking after considerably, but he thought that the authorities were doing their best to effect improvement, and felt anxious to make them as perfect as possible. The questions of nursing, of the Medical Schools, of the out-patient department, and matters connected with the financing of the hospital, were then gone into. In reply to Lord Zouche, the witness thought Government might appoint a body acquainted with the work to look after financial matters, and to draw up a uniform plan for their management. Lord Thring directed several questions relating to the responsibilities and powers of the governing body of Guy's Hospital, from which it appeared that ultimately any question of finance or discipline in connexion with any of the various departments of the hospital were first submitted to Dr. Steele, and afterwards, if necessary, laid before the treasurer of the hospital, who ultimately decided any point of that kind, the governors, as Lord Kimberley pointed out, acting merely as ciphers. Mr. Timothy Holmes (St. George's Hospital) gave evidence regarding the growth of the out-patient administration, and was of opinion that it was a necessary part of the hospital for teaching purposes, but not for the treatment of diseases. No hardship would be entailed on the public by abolishing them, inasmuch as the poor, unable to pay for themselves, would be provided for by the Poor-law, and those who were able to pay might form clubs or provident dispensaries. It was a new institution, and no out-patient departments existed a hundred years ago in any hospital in England. He should like to see the out-patient department made a consultant department as in France and as it used to be in Scotland, and that out-patients should receive the opinion of the hospital consulting physicians or surgeons only when referred to them by the medical officer of a provident dispensary. Regarding special hospitals, he thought it would be better for the public if many of the special hospitals were closed altogether, inasmuch as they would not be required to subscribe to them. They were unnecessary, because other hospitals were better fitted to do their work. Moorfields and Brompton Hospitals were excepted as having done much good work. From his experience of French hospitals he would not like to see the London hospitals put on the same basis of State aid as existed there. He should like to see the hospitals, especially of the Metropolitan Asylums Board, opened to students, as that was the only means by which a knowledge of infectious diseases could be obtained in London; but suggested that it was only qualified students who could find time to participate in the advantages to be derived from these infirmaries. Asked at the end of his examination whether he had any improvements to suggest in reference to the management of hospitals, he replied that he did not see anything to complain of in the existing system of the management of the in-patients.

The Committee will again meet at twelve o'clock on Monday, the 12th inst.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on May 6th, 1890.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever	Other diseases.	Total.	
Eastern Hospital	165	19	..	13	..	197	442
North-Western Hospital	99	24	..	5	..	128	415
Western ,,	137	13	..	13	3	166	262
South-Western ,,	146	..	..	..	..	146	350
South-Eastern ,,	158	13	2	24	4	201	402
Northern ,,	314	22	..	12	..	348	584
Totals	1019	91	2	67	7	1186	2515

SMALL-POX.—*Atlas* hospital ship, 2.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BARKER, FREDK., M.R.C.S., L.R.C.P., has been appointed Resident Medical Officer to the Lincoln United Friendly Societies.

CLOUGH, JOSEPH, M.R.C.S., L.R.C.P. Lond., House Physician to the Leeds General Infirmary, has been appointed Junior House Surgeon to the Bolton Infirmary and Dispensary, vice F. R. B. Hinde, M.B., M.R.C.S., resigned.

COOPER, LUDFORD, M.R.C.S., L.R.C.P., has been appointed House Physician to the East London Hospital for Children, Shadwell.

COPNER, ARTHUR L., M.R.C.S., L.R.C.P. Edin., has been appointed Medical Officer for the Seventh District of the Barnstaple Union, vice F. Gardner, M.R.C.S., L.S.A., resigned.

DISTIN, H., L.R.C.P., M.R.C.S., has been appointed Assistant House Accoucheur to King's College Hospital, vice E. D. Rees, L.R.C.P., L.S.A.

DRURY, A., M.B., C.M. Edin., has been appointed Medical Officer and Public Vaccinator for the Township of Halifax.

EDELSTEN, E. A., M.A., M.B., B.Ch. Oxon., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House Surgeon to the York County Hospital.

FAULKE, H. C., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Third District of the Lexden and Winstree Union.

FOSBROKE, GEORGE HAYNES, M.R.C.S., L.S.A., D.P.H. Camb., has been appointed Medical Officer of Health for the County of Worcester.

GUNN, F. W., M.R.C.S., L.R.C.P., L.S.A., late House Accoucheur, has been appointed Sir J. Lister's House Surgeon, King's College Hospital, vice A. H. Cheatle, M.R.C.S., L.R.C.P., resigned.

HARRATT, HENRY, M.R.C.S., has been appointed Medical Officer for the Second District of the Rye Union, vice Harris, deceased.

HASLETT, R. W., M.B. Univ. Irel., has been appointed Assistant Medical Officer to the Workhouse, Parish of Liverpool.

HEWLETT, R. T., L.R.C.P., M.R.C.S., late Assistant House Physician, has been appointed House Physician to King's College Hospital, vice T. B. Beach, M.R.C.S., L.R.C.P., resigned.

HOLLIS, E., M.D. Edin., has been reappointed Medical Officer and Public Vaccinator for Woodbridge.

LACK, H. L., M.R.C.S., L.R.C.P., has been appointed Mr. Cheyne's House Surgeon, King's College Hospital, vice P. T. B. Beale, M.R.C.S., L.R.C.P., L.S.A., resigned.

LUCAS, R. H., M.R.C.S., has been appointed Assistant Medical Officer to the Suffolk General Hospital.

MACBRYAN, H. C., L.R.C.P., L.R.C.S. Edin., has been appointed Resident Medical Superintendent at the Tue Brook Villa Private Asylum, Liverpool, vice Hall, resigned.

MARTIN, MATTHEW, M.B. & C.M. Glas. Univ., has been appointed Medical Officer to the Third or Parkhead Medical District of the Barony Parish, Glasgow, vice Dr. Wm. Young, deceased.

PALMER, R. A., M.B. Glas., L.R.C.S. Edin., has been appointed Medical Officer for the Mullaghglass Dispensary District, Newry Union, vice Lightburne, deceased.

PRUEN, S. T., M.D. Durh., M.R.C.S., has been appointed Medical Officer of the Workhouse, Cheltenham.

REES, E. D., L.R.C.P., L.S.A., late Assistant House Accoucheur, has been appointed House Accoucheur to King's College Hospital, vice F. W. Gunn, M.R.C.S., L.R.C.P., resigned.

RUFFER, MARC ARMAND, M.A., M.D. Oxon., &c., has been appointed Pathologist to the City of London Hospital for Diseases of the Chest, Victoria Park, vice Dr. Wethered, promoted to the office of Assistant Physician.

SANDIFER, H. S., L.R.C.P., M.R.C.S., has been appointed Assistant House Physician to King's College Hospital, vice R. T. Hewlett, M.R.C.S., L.R.C.P.

THOMASON, R. H., M.R.C.S., L.R.C.P., L.S.A., has been appointed Mr. Rose's House Surgeon, King's College Hospital, vice J. Penny, M.R.C.S., L.R.C.P., resigned.

WILSON, J., M.D. Edin., has been appointed Medical Officer for No. 4 District of the Cheltenham Union.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BARNWOOD HOUSE HOSPITAL FOR MENTAL DISORDERS, near Gloucester. Junior Assistant Medical Officer. Salary £100 a year, with board, lodging, and washing.

BRIGHTON, HOVE, AND PRESTON DISPENSARY.—House Surgeon to the parent institution. Salary £140 per annum, with furnished apartments, coal, gas, and attendance.

CANCER HOSPITAL (FREE), Brompton, S.W.—Assistant House Surgeon and Registrar. Salary £50 per annum, with board and residence.

CENTRAL LONDON THROAT AND EAR HOSPITAL, Gray's-inn-road.—Three Clinical Assistants.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House Physician for six months. No salary, but board, residence, and allowance for washing provided. (Apply to the Secretary, 24, Finsbury-circus, E.C.)

HANTS COUNTY ASYLUM, Knowle, Fareham.—Third Assistant Medical Officer. Salary £100 per annum, increasing to £125 after twelve months' services, with furnished apartments, board, washing, and attendance.

HARTLEPOOL UNION.—Medical Officer and Public Vaccinator for the District of Greatham. Salary (exclusive of extras) £30 per annum. (Apply to Mr. Kilvington, Clerk to the Guardians, Municipal Buildings, West Hartlepool.)

INFIRMARY OF THE CITY OF LONDON UNION.—Assistant Medical Officer and Dispenser, at the Infirmary of the Union, situate in the Bow-road. Salary £100 per annum, together with residence at the Infirmary, rations, and washing.

KENT COUNTY LUNATIC ASYLUM, Chartham, near Canterbury.—Second Assistant Medical Officer. Salary £120 per annum, with furnished apartments, board, and attendance.

LONDON COUNTY COUNCIL, Spring-gardens, S.W.—Medical Officer for District D of the Fire Brigade. The remuneration will be at the rate of 20s. per annum for each man in the force within his district, such payment to include the cost of medicine, surgical appliances, and services of every kind.

MACCLESFIELD GENERAL INFIRMARY.—Junior House Surgeon. Salary £70 per annum, with board and residence in the institution.

NORTH LONDON CONSUMPTION HOSPITAL, Hampstead and London.—Resident Medical Officer. Honorarium at the rate of £40 per annum, with rooms and board.

ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN, Dyke-road, Brighton.—An Acting Physician. Also an Assistant Surgeon.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Examiners in Anatomy and Physiology for the Fellowship. Also Examiners in Elementary Anatomy and in Elementary Physiology for the First Professional Examination, of Examiners in Anatomy and in Physiology for the Second Professional Examination, and of Examiners in Midwifery for the Third or Final Examination.

ROYAL HOSPITAL FOR SICK CHILDREN, Glasgow.—An extra Honorary Physician.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand.—House Surgeon.

WIRRAL CHILDREN'S HOSPITAL, Woodchurch-road, Birkenhead.—Resident House Surgeon (Lady or Gentleman). Salary £50 per annum, with board, lodging on the premises, and washing.

Births, Marriages, and Deaths.

BIRTHS.

BARRINGTON.—On May 6th, at Meerut, India, the wife of Surgeon-Major Barrington of a daughter.

BROOKHOUSE.—On May 3rd, at Manor-road, Brockley, S.E., the wife of C. T. Brookhouse, M.D., of a daughter.

SPROTT.—On May 4th, at Netherlea, Beeston, Nottingham, the wife of W. J. Sprott, M.D., of a son.

WALKER.—On May 2nd, at Hurworth-upon-Tees, near Darlington, the wife of Dr. C. E. Walker, of a son.

MARRIAGES.

HILDYARD—SHAND.—On April 30th, at the Parish Church, Heydon, Norfolk, Robert Loxham Hildyard, M.R.C.S., second son of the late Rev. Alexander Grant Hildyard, to Mary Dalrymple Shand, only daughter of the late Rev. George Shand, formerly Rector of Heydon.

MAKEHAM—PERKINS.—On April 26th, at St. Margaret's, Lewisham, Henry William Payne Makeham, M.R.C.S., L.R.C.P., L.S.A., M.D., to Frances Emmelline, only surviving daughter of John W. Parkins, Esq., of Ennerdale, Burnt Ash Hill, Kent.

MARWOOD—COTTIER.—On April 3rd, at St. Matthew's Church, Prahran, Melbourne, Dr. Arthur William Marwood, second son of the late Matthew Marwood, of Melbourne, to Isabella Field Ella, eldest daughter of Daniel Cottier, of London and New York.

SCOTT—HESLOP.—On April 30th, at Thornton Dale, near Pickering, by the Rev. Geo. Scott, M.A., J.P., Vicar of Coxwold (father of the bridegroom), and the Rev. Gordon Heslop, M.A. (uncle of the bride), Richard Arthur Scott, L.R.C.P. Edin. &c., to Mary Katharine Jane, elder daughter of the Rev. E. W. Heslop, Rector of Thornton Dale, and Rural Dean.

SELBY—EASTTY.—On April 30th, at the Parish Church, Croydon, Prideaux George Selby, M.R.C.S., L.R.C.P., of Greenstreet, Kent, eldest son of Prideaux Selby, Esq., of Koroit, Croydon, to Elizabeth Mary Alice, eldest daughter of the late Rev. J. Henry Eastty, B.A. Worc. Coll., Oxon.

SHARPE—LOCKETT.—On April 16th, at St. David's Church, Moreton-in-Marsh, William Salisbury Sharpe, M.R.C.S., L.R.C.P., of Gloucester-crescent, Hyde Park, to Alice Mary Lockett, of Leamington House, Moreton-in-Marsh.

TURNBULL—FREEMAN.—On April 29th, at All Saints', West Hesleriton, Yorkshire, George Lindsay Turnbull, M.A., M.B. Oxon., elder son of the late George Turnbull, of Rosehill, Abbotts Langley, to Ellen, elder daughter of James Freeman, of Norwich.

DEATHS.

BROMLEY.—On May 4th, at Portland-terrace, Southampton, Charles Henry Bromley, M.R.C.S., in his 52nd year.

BUBB.—On May 4th, at Royal-crescent, Cheltenham, John Bubb, M.R.C.S., A.K.C., aged 51.

LOCHEE.—On May 2nd, at Oaten-hill House, Canterbury, Alfred Lochee, M.D., F.R.C.P., aged 79.

WHEELER.—On May 3rd, at Wadstena House, Bexley, Thomas Wheeler, surgeon, in his 73rd year.

WILLIAMS.—On May 2nd, Trevor Wynn Williams, M.R.C.S., eldest and only surviving son of the late Arthur Wynn Williams, M.D., of Montagu-square, W., aged 38.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, May 12.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M. Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital, Moorfields: 1 P.M., Mr. Wm. Lang: External Diseases of the Eye. Hospital for Sick Children, Gt. Ormond-st.: 4 P.M., Dr. Cheadle: Chronic Constipation in Children, and its Treatment.

SOCIETY OF ARTS.—8 P.M. Mr. Richard Bannister: Sugar, Tea, Coffee, and Cocoa, their Origin, Preparation, and Uses. (Cantor Lecture.)

Tuesday, May 13.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same days, 2 P.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 2 P.M., Dr. R. Percy Smith: Mania.—Hospital for Diseases of Skin, Blackfriars: 4 P.M., Mr. Jonathan Hutchinson: Lupus Erythematosus and its Allies.

ROYAL INSTITUTION.—3 P.M. Mr. Louis Fagan: Wood Engraving.

SOCIETY OF ARTS.—8 P.M. Prof. W. C. Roberts-Austen: The Use of Alloys in Art Metal-work.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Mr. A. A. Bowlby: On the Condition of the Reflexes in cases of Injury to the Spinal Cord, with special reference to the Indications for Operative Interference.

Wednesday, May 14.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Mitchell Bruce: Pseudo Angina Pectoris.—Royal London Ophthalmic Hospital: 8 P.M., Mr. Marcus Gunn: Ophthalmoscopic Cases.

EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Dr. R. Pringle: Enteric Fever in India.

SOCIETY OF ARTS.—8 P.M. Dr. J. A. Fleming: Prof. Elihu Thomson's Electro-magnetic Induction Experiments.

BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Council at 8 P.M. Dr. A. W. Edis: Diagnosis and Treatment of Obscure Cases of Metrorrhagia.

Thursday, May 15.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

LONDON POST-GRADUATE COURSE.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Charlton Bastian: Aphasic and Amnesic Defects of Speech.—The New Infirmary, Paddington: 4 P.M., Mr. Jonathan Hutchinson: Clinical Lecture on Surgical Cases. 5 P.M., Dr. Savill: Post-mortem Examinations.

ROYAL INSTITUTION.—3 P.M. Prof. Dewar: Flame and Explosives.

ST. PETER'S HOSPITAL FOR STONE, &c.—4 P.M. Mr. F. Swinford Edwards: Electrolysis in Stricture and other Urinary Diseases.

ZOOLOGICAL SOCIETY OF LONDON (Lecture Room, Society's Gardens, Regent's-park).—5.30 P.M. Mr. F. E. Beddard: The Colours of Animals. (Davis Lecture.)

SOCIETY OF ARTS.—5 P.M. Mr. C. Washington Eves: Jamaica and its forthcoming Exhibition. 8 P.M. Mr. Lewis F. Day: Design applied to Wood-carving.

HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Clinical Evening. Cases will be shown by Mr. Carter, Dr. Ewart, Mr. Lockwood, Dr. Stephen Mackenzie, and others.

Friday, May 16.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Clinical Demonstration.—Hospital for Consumption, Brompton: 4 P.M., Dr. Mitchell Bruce: The Gouty Heart.
LONDON HOSPITAL MEDICAL COLLEGE.—3 P.M. Mr. Jonathan Hutchinson: Stone in the Bladder.
ROYAL INSTITUTION.—9 P.M. Prof. Meldola: The Photographic Image.

Saturday, May 17.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
ROYAL INSTITUTION.—3 P.M. Dr. C. Waldstein: Recent Excavations in Greece.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 8th, 1890.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
May 2	29·94	S.E.	50	47	105	65	44	..	Bright
,, 3	29·89	E.	55	48	109	69	46	..	Hazy
,, 4	29·75	E.	54	49	96	66	48	..	Overcast
,, 5	29·54	E.	51	49	93	63	49	·03	Raining
,, 6	29·69	S.E.	56	52	94	64	48	·09	Cloudy
,, 7	29·62	S.	57	52	77	62	49	·01	Hazy
,, 8	29·62	S.	51	50	..	55	49	·02	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

THE CHOICE OF ANÆSTHETICS.

THE answer to the question "With whom should the choice of an anæsthetic finally rest?" put by a correspondent in our last week's issue, must vary according to circumstances. When an expert is called in, he would naturally do his best for the patient and the operator. When, upon the other hand, a surgeon asks another medical man to administer a particular anæsthetic, the presumption is that he has reviewed the position, and believes that that anæsthetic will give the patient the best chance. If the anæsthetist holds a contrary view, he would consistently represent his reasons for dissent, and, if no agreement could be effected, retire from the case. The final responsibility must certainly rest with the administrator. In the present state of the law it is impossible to say whether or not a civil action would lie against surgeon or anæsthetist in the event of a fatality occurring after a disagreement between the medical men—probably both would incur legal liability.

Propriety.—There is much need for taste and care in such a use of testimonials; but we are not prepared to say that it is necessarily unjustifiable, if carefully restricted to the patients of a particular practice, who have a right to be informed of the manner of man to whom they are, in a sense, to be transferred.

A Constant Reader has forgotten to enclose his card.

A CASE OF OBSTINATE VOMITING.

To the Editors of THE LANCET.

SIRS,—Will one of your readers offer a suggestion as to the treatment of the following case?

A boy aged eleven, growing rapidly, is troubled with vomiting every morning after food, followed by severe headache, which passes off in a few hours. There are no physical signs of disease, and I have tried all the usual remedies.

I am, Sirs, yours faithfully,
May 7th, 1890. SURGEON.

EPIDEMIC INFLUENZA IN CHINA.

DR. G. HARDYMAN (Bath) has received from Dr. T. M. Young a communication, dated Moukden, China, in which occurs the following passage regarding the late epidemic:—

"We had a fever exactly like the one now visiting Europe last summer, which unhappily I experienced myself, spreading like wildfire, and which I have since traced to the Russian frontier. I feel sure that your disease came from this district—i.e., Siberia and Upper Manchuria."

Dr. A. G. Auld.—Would it not be best for our correspondent to communicate with the writer of the letter on the point mentioned?

SIX YEARS IN BED.—AN APPEAL.

To the Editors of THE LANCET.

SIRS,—Will you allow us through the medium of your columns to make an appeal on behalf of a distressed medical brother? Dr. C—— has been for twenty years the subject of slowly advancing nervous disease, which has through the whole of that period disabled him. He has been more than six years in bed. He may live ten years yet, and his means are quite exhausted. His friends have privately done what they can for him, but his long illness has exhausted their resources. There is nothing now before him but the workhouse. He has a nurse who is devoted to him, and they live in very economical lodgings. His earnest desire is that his home may not be broken up. Some of us have known Dr. C—— for many years, and can vouch for his respectability in every way, for the accuracy of the above statements, and also for the exemplary patience with which his afflictions have been borne. We shall, any of us, be glad to receive contributions from those who may incline to assist him.—We are, Sirs, yours faithfully,

JONATHAN HUTCHINSON, ANDREW CLARK, M.D.,
J. HUGHLINGS JACKSON, J. LANGDON DOWN, M.D.

Contributions already promised:—

Sir Andrew Clark	£10 10 0	Mr. Hutchinson	£10 10 0
Dr. Down	5 5 0	Messrs. Wakley, the Proprietors of THE LANCET	10 10 0
Dr. Hughlings Jackson	10 10 0		

ANOTHER APPEAL.

To the Editors of THE LANCET.

SIRS,—Allow me through the medium of your journal to make an appeal to the members of the profession on behalf of Mr. J. W. Danaher, surgeon, Plaistow, who, I am sorry to say, has been laid aside from the practice of his profession for upwards of a year by disease of the brain and spinal cord, resulting in impairment of mind and complete paraplegia. The object of this present movement is to make some permanent provision for the family, whose circumstances are very straitened. I may mention that there are four children to be maintained, and that Mrs. Danaher has been partially paralysed in the lower limbs ever since the birth of her last child, now a boy ten years of age, whom we are endeavouring to get into the Royal Medical Benevolent College at Epsom. The Committee of the British Medical Benevolent Fund have kindly consented to head the list with a donation of £18, and Mr. Edward East, of 16, Upper Berkeley-street, Portman-square, has consented to act as treasurer of the fund. Contributions to the above-mentioned object may be forwarded to the treasurer, or to any of the under-mentioned gentlemen, who strongly recommend and support the appeal:—Jonathan Hutchinson, Esq., F.R.S., 15, Cavendish-square, W.; Dr. Stephen Mackenzie, F.R.C.P., 18, Cavendish-square, W.; F. M. Corner, Esq., Manor House, East India-road, Poplar; Major Banes, J.P., M.P., Plaistow, Essex; Rev. R. W. B. Marsh, late Vicar of Plaistow; and

Yours faithfully,
ALFRED WOODFORDE,
Plaistow, Essex, May 3rd, 1890. Surgeon.

ACCIDENTAL REVACCINATION.

To the Editors of THE LANCET.

SIRS,—The following case of accidental revaccination from a child's arm is interesting on account of the period at which inoculation took place.

On the 25th of last month I vaccinated a child aged eight months, and on the 1st inst. I removed from the vesicles four tubes of lymph. On the 14th or 15th inst. the mother of the child complained of an irritable spot on her left cheek, which, after growing for a day or two, was declared by her friends to be a pock. On the 21st inst. I examined the cheek, and found a large greyish vesicle, with a well-marked depressed centre, and surrounded by an inflamed and indurated area. Undoubtedly this was a vaccine vesicle, which had reached the tenth day of development. It is supposed that during sleep the mother's cheek had rested against the child's arm, and thus, seventeen days after vaccination, contact with the crust revaccinated the mother.

I am, Sirs, yours very truly,
April 28th, 1890. J. S.

SULPHONAL.

To the Editors of THE LANCET.

SIRS,—I should feel much pleased if any of your numerous readers could tell me whether a continued or frequent use of sulphonal has any injurious effect, and also if it loses its potency and requires increasingly large doses.

I am, Sirs, yours truly,
May 6th, 1890. ENQUIRER.

MECHANICAL SUPPORT DURING AND AFTER LABOUR.

To the Editors of THE LANCET.

SIRS,—As so much attention has lately been drawn to the use of mechanical support during and after labour, will you allow me to revive the interest that many years ago was taken in the contrivance of Dr. Woodward of Worcester. This consists of an abdominal band, connected by straps with a steel pad that fits over the loins, and is fixed by a truss passing over the right hip as the patient lies in the obstetrical position. The pressure exerted can be regulated by straps, and the relief to the backache, and support and assistance to the abdominal muscles during pains, are most striking. A full description is to be found in THE LANCET, vol. ii. 1869, p. 599, and vol. ii. 1870, p. 217.

I am, Sirs, yours obediently,

Boundary-road, N.W., May 5th, 1890. RICHD. NEALE, M.D.Lond.

CHARITY WHICH BEGINS AT HOME.

To the Editors of THE LANCET.

SIRS,—I have just received my voting paper for Epsom College, containing the usual heartrending list of twenty widows (of whom only four can be elected) and forty-five orphans (of whom only six can be elected). The husbands of eight of the widows and the fathers of six of the orphans practised in London or within the metropolitan district, and therefore, had they subscribed to the Society for the Relief of Widows and Orphans of Medical Men, their relatives would not have had to appeal to the sister society, but would have received annuities as a matter of right. When two guineas a year will purchase a certainty, why will doctors, of all men, leave things to chance?

I am, Sirs, yours obediently,

May, 1890. CARITAS.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Jonathan Hutchinson; Dr. Marshall, London; Mr. Jessett, London; Dr. Mott, London; Mr. Erichsen, London; Mr. Ballance, London; Dr. Ward Cousins, Southsea; Mr. Piggott, Clare; Mr. R. Coombe, Exeter; Dr. Maxwell, Woolwich; Dr. Senior, Curaçao; Messrs. Nicholls and Co., London; Mr. T. Ryan, London; Dr. Gowers; Messrs. Blondeau et Cie., London; Dr. J. W. Taylor, Scarborough; Messrs. Green and Jolly, Birmingham; Dr. Codlee, Walthamstow; Dr. Bontor, Great Berkhamsted; Mr. Crozier, Lytham; Dr. Auld, Glasgow; Mr. A. de St. Dalmas, Leicester; Dr. Jas. Oliver, London; Messrs. Wood and Co., New York; Dr. C. W. Ward, Chicago; Dr. Morson, New South Wales; Col. Onslow, London; Mr. D'A. Power, London; Dr. Donald Hood, London; Mr. E. R. Williams, Carmarthen; Mr. Knight, New York; Mr. Hewlett, London; Dr. Rentoul, Liverpool; Messrs. Moat Bros., Belfast; Dr. Auld, Glasgow; Mr. Pullan; Mr. Kilvington, West Hartlepool; Dr. Habgood; Dr. Evans, Bakewell; Messrs. Williams and Co., London; Surgeon R. H. Firth, Dover; Messrs. Murray and Son, Dublin; Mr. Milton, Cairo; Mr. Burton, Marple; Messrs. Davies and Co., Cornhill; Dr. R. P. Reid, Halifax, N.S.; Messrs. Thorpe and Co., Folkestone; Dr. Ballantyne, Edinburgh; Mr. Musprati, East Dulwich; Mr. Lazarus, London; Dr. D. Bode, Bombay; Mr. Miles, Stantonbury; Dr. Fitzpatrick, London; Mr. Blakeney; Dr. Popham, Dulwich; Dr. J. Phillips, London; Mr. Davis, Brighton; Dr. Bauer, St. Louis; Mr. Somerville, London; Dr. Moure, Bordeaux; Mr. T. Bryant, London; Mr. Pimm, London; Mr. Adams, Bombay; Mr. C. Birchall, Liverpool; Dr. Macdougall, Galashiels, N.B.; M. Masson, Paris; Mr. Thin, Edinburgh; Mr. Russell, Liverpool; Mr. Goodall, Sheffield; Mr. Eccles, Bloomsbury; Mr. Howe, Weston; Mr. Owen, Liverpool; Mr. Frost, London; Mr. Pike, Gloucester; Mr. Scott, Manchester; Mr. Shepperson, Holborn; Dr. Jack; Messrs. Petty and Co., London; Dr. Neale, London; Dr. Hamilton, Glasgow; Dr. Greig Smith, Clifton; Dr. Garden, Aberdeen; Mr. R. C. Bailey; Mr. Lester Curtis, Chicago; Mr. Faulkner, London; Mr. Tandy; Dr. Fletcher Beach, Dartford; Mr. Southam, Manchester; Messrs. Fannin and Co., Dublin; Mr. Fairfax, Banbury; Mr. C. Braine; Messrs. Griffin and Co., London; Medicus, Middlesbrough; Hieretica, London; J. C. F., London; K. K. K., London; Reader; Secretary, Brighton Dispensary; Linnæus, London; Lady Superintendent, Metropolitan Convalescent Institution, Surrey; James, Briggate; Publisher, *Clinica Medica*, Italy; W. H. V., London; Suburban; Surgeon; *British Journal of Dental Science*, London; Medicus; Secretary, Macclesfield General Infirmary; Euonymin, London; Secretary, Hand-in-Hand Fire Office, London; Medicus, Wakefield; Owner; M.D., Hackney.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Thayse, Wiesbaden; Sir Morell Mackenzie, London; Messrs. Hooper and Co., Pall Mall East; Mr. Irving, Stoke-on-Trent; Messrs. Godfrey and Cooke, London; Mr. John, Haverfordwest; Messrs. Wright and Co., Westminster; Mr. Bell, Lancaster; Messrs. Kilner Bros., King's-cross; Dr. Fryer, Berkeley; Mr. Cropley, Northampton; Mr. Lennox Browne, London; Mr. Wiglesworth, Ashford; Messrs. Beaman and Street, Ashton; Mr. Bow, Larbert, N.B.; Mr. Simmonds, Newbury; Mr. Davies, Lampeter; Mr. Brockelbank, London; Mr. Thompson, Bideford; Dr. Morton, Kilburn; Mr. Grant, Dundee; Dr. Liveing, London; Mr. Ellis, Leicester; Messrs. Hulse, Nunhead; Mr. Phelps, Sittingbourne; Mr. Brocklehurst, Stockport; Mr. J. Heywood, Manchester; Mr. Darke, Pall Mall; Dr. Sealy, Weybridge; Mr. Bertram, Oxford; Mr. Tully, Hastings; Mr. Edwards, Cardiff; Dr. Henderson, co. Londonderry; Mr. Plummer, Newcastle-on-Tyne; Surgeon Maitra, India; Dr. Warburton, Sheffield; Mr. Dowling, Rusholme; Mr. C. W. Jennings, London; Mr. Faulkner, London; Mr. Williams, Oxford; Mr. Boehm, London; Dr. MacDonald, Ruabon; Messrs. Savory and Moore, London; Mr. Hornibrook, Bloomsbury; Messrs. Schweitzer and Co., London; Mr. Heywood, Manchester; Mr. Tindall, Market Harboro'; Mr. Berry, Wigan; Mr. Sergeant, London; Messrs. Bullock and Co., London; Mr. Wheeler, Manchester; Messrs. Sharp and Co., Glasgow; Mr. Storr, Haslemere; Mr. Darby, Belfast; Dr. Oliver, Australia; Dr. Rutherford, Shipley; Miss Powles; Dr. Adams, Warrington; Dr. Redwood, Rhymney; Mr. Earle, Greenwich; Mr. Scott, Pickering; Mr. Fowler, Coventry; Mr. Cherry, Worcester; Mrs. Adams, Edinburgh; Mr. Sanderson, Doncaster; Dr. Pattinson; Mr. Haywood, Notts; Mr. Woodward, Sheffield; Nurse Mackenzie, Yorkshire; G. G. W., London; A. S., Tipton; M. J. R., London; Medicus, Bradford; W. R., Mansfield; Brighton, London; Health, London; Lady Superintendent, Heddingley; Iles, Taunton; W., London; Nucleus Opening, London; Medicus, Folkestone; Secretary, Wolverhampton General Hospital; D. W. R., Stockport; Secretary, Birmingham and Midland Skin Hospital; G. W., London; E. N. S., London; W. P., Thetford; City, London; Medicus, London; Matron, St. Marylebone Infirmary; Rex, London; Accoucheur, London; Surgeon, Rhondda Valley; W. J. C., London; J. C. F., London; Ciegee, London; The Corporation, Burton-on-Trent; H., Hackney; Lex, London; Coca, Holloway; A. B., London; Walker, London; A. J. L., London; Iles, Taunton; Juno, London;

NEWSPAPERS.—*Bristol Times, Land and Water, Glasgow Herald, City Press, Nottingham Daily Guardian, Brighton Guardian, Kilkenny Journal, Sunday Times, Sheffield Daily Telegraph, West Middlesex Standard, Newbury Weekly News, Builder, Spectator, Metropolitan, Scottish Leader, Broad Arrow, Local Government Chronicle, Weekly Free Press and Aberdeen Herald, Chemist and Druggist, New York Herald (London), Leeds Mercury, Leicester Daily Post, Hertfordshire Mercury, Bristol Mercury, West Middlesex Advertiser, Western Mail, Surrey Advertiser, Mining Journal, Eastern Daily Press, British Weekly, Windsor and Eton Express, Reading Mercury, Temperance Record, East Anglican Times, News, Public Opinion, Hospital Gazette, Bournemouth Visitors' Directory, Dundee Advertiser, Birmingham Daily Gazette, Architect, Northern Standard, Alliance News, English Mechanic, Scotsman, Sunday Chronicle, Dietetic Gazette, Agricultural Economist, The Guide, Journal of British and Foreign Health Resorts, &c.*, have been received.

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